Draft Environmental Impact Report

Perris Valley Commerce Center

SCH No. 2009081086

Lead Agency:
City of Perris, Planning Division
Development Services Department
135 North "D" Street
Perris, CA 92570
Contact: Diane Sbardellati, Associate Planner
(951) 943-5003

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ACKNOWLEDGEMENTS

City Council

Daryl R. Busch, Mayor
Joanne Evans, Mayor Pro Tem
Rita Rogers, Councilmember
Al Landers, Councilmember
Mark Yarbrough, Councilmember

Planning Commission

Judy Rosen-Haughney, Chairperson
Dwayne Hammond, Vice Chairman
Dave Stuart, Commissioner
Sal Mancuso, Commissioner
Brady McCarron, Commissioner
Matthew Buck, Commissioner
Jose Marin, Commissioner

City Staff

Richard Belmudez, City Manager
Clara Miramontes, Planning Manager
Diane Sbardellati, Associate Planner
Habib Motlagh, Tri Lake Consultants, City Engineer
Eric L. Dunn, Aleshire & Wynder, LLC , City Attorney

Consultants

Albert A. Webb Associates
3788 McCray Street
Riverside, CA 92506
951-686-1070

Cadence Environmental Consultants
816 Sausalito Drive
Carmarillo, CA 93010
805-504-2140

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1.0 Executive Summary

Document Purpose

This Draft Environmental Impact Report (DEIR) has been prepared to inform decision-makers and the public of the potentially significant environmental effects associated with the project approvals for the Perris Valley Commerce Center Specific Plan (PVCC) in the City of Perris. This study has been prepared pursuant to the California Environmental Quality Act, known as CEQA, (California Public Resources Code, Sections 21000, et seq.) and the State *CEQA Guidelines* (California Code of Regulations, Sections 15000, et seq.) and the Guidelines for Implementation of the Environmental Quality Act (State *CEQA Guidelines*) (California Code of Regulations, Sections 15,000, et seq.). The City of Perris is the Lead Agency for the proposed project under CEQA and is responsible for the preparation of this DEIR.

Project Location

The proposed PVCC project site is located over approximately 3,500 gross acres within the City of Perris, in Riverside County, California (**Figure 1.0-1, Regional Map**). The project site is located east of Interstate 215, west of the Perris Valley Storm Channel (PVSC), south of March Air Reserve Base (MARB), and north of Placentia Street. The surrounding area includes the City of Moreno Valley and MARB to the north, the community of Mead Valley, an unincorporated area of Riverside County to the west, and more developed areas of the City of Perris to the south and east (**Figure 1.0-2, Aerial Photograph**).

The project site includes both developed and undeveloped land. The areas surrounding the project site have been reshaped by the regions past growth and gradual urbanization, while the project site encompasses a patchwork of residential, commercial, and industrial development interspersed with agricultural fields and vacant land.

Surrounding land uses, as shown in **Table 1.0-A, Existing (2009) Land Uses,** include the following:

North: Vacant land, MARB and industrial uses within Moreno Valley jurisdiction
South: Industrial, residential and vacant land
East: PVSC, residential and vacant land
West: Vacant property, industrial uses, Interstate 215 and an existing rail line within Riverside County jurisdiction

Table 1.0-A, Existing (2009) Land Uses

Existing Land Use	Total Acreage
Agriculture	527.4
Commercial	121.7
Commercial-Parking	108.4
General Office	14.3
General Industrial	276.4
Warehouse/Distribution	224.9
Val Verde High School	17.6
Single-Family Residential	261.4
Mobile home Parks	24.9

Existing Land Use	Total Acreage
Vacant	1,687.5
Other (ROW, etc.)	319.5
TOTAL	**3,584.0**

The terrain within the project site is relatively level. Elevations range from 1,435 feet above mean sea level (MSL) at the southeastern corner near the PVSC to 1,522 feet MSL at the northwestern corner near MARB, an 87-foot difference in elevation over a distance of 3.5 miles.

The PVCC project area is primarily designated for Light Industrial (LI) land use by the Perris General Plan (Perris GP), but the project area also contains Business Park (BP), Community Commercial (CC), General Industrial (GI), Neighborhood Commercial (NC), Open Space (OS), Other (ROW, water quality basins, etc.), Professional Office (PO), Residential (Multi-Family MFR-14, Single-Family R-6,000 and R-20,000), Specific Plan (SP) and Public/Semi Public (P) land use designations. (See **Figure 3.0-3, Existing Land Use Designations** and **Table 3.0-B, Proposed Land Use Designation Changes**.)

Project Description

The proposed project includes the adoption of the PVCC and infrastructure plans. The project area covers approximately 5.23 square miles of the northern part of the City of Perris. The PVCC would slightly modify existing Perris GP land use designations (see **Figure 1.0-3, Existing Land Use Designations**), and set forth a list of permitted uses, guidelines for landscape and architectural design, infrastructure plans, and administrative procedures. (See **Figure 1.0-4, Proposed Land Use Plan**.)

Generally, the PVCC land use designations correspond with the current Perris GP land use designations with the following exceptions. The Community Commercial (CC) and Neighborhood Commercial (NC) have been combined into one designation – Commercial (C). Business Park (BP) and Professional Office (PO) have been combined to form one designation – Business/Professional Office (BPO). Public/Semi-Public/Utilities (P) and Park, Recreational, and Natural Open Space (OS) have been combined to Public (P). **Table 1.0-B** below, shows the changes in the project area's land use designations proposed by the PVCC.

Table 1.0-B, Proposed Land Use Designation Changes

Land Use Designations	Current Perris GP Acreage	PVCC Proposed Acreage
Business Park (BP)	286.87	0.00
Business Park/Professional Office (BPO)	0.00	357.12
Commercial (C)	0.00	309.22
Community Commercial (CC)	456.47	0.00
General Industrial (GI)	422.90	407.95
Light Industrial (LI)	1,620.08	1,836.28
Neighborhood Commercial (NC)	5.85	0.00
Open Space (OS)	30.73	0.00

Land Use Designations	Current Perris GP Acreage	PVCC Proposed Acreage
Other (ROW, Basins, etc)	329.24	339.47
Professional Office (PO)	30.13	0.00
Public/Semi-Public Facility (P)	89.36	248.71
Residential (Multi-Family) (MFR-14)	0.00	22.33
Residential (Single-Family) (R-6,000)	59.12	0.00
Residential (Single-Family) (R-20,000)	62.88	62.88
Specific Plan (SP)	190.33	0.00
Total Acres	**3,583.96**	**3,583.96**

The infrastructure plans proposed as part of the project include analysis of storm drains, stormwater quality, and water and sewer facilities.

As part of the infrastructure plans, an updated Perris Valley Master Drainage Plan (PVMDP) will be needed in order to meet the development goals of the PVCC. The drainage systems that will be developed in conjunction with the PVCC will consist of two basic components: storm drains and detention basins. The drainage system will capture surface runoff from properties in the area and convey it into proposed storm drains and detention basins before continuing to the PVSC. The Master Plan basins are designed to dewater within 48 hours to 72 hours after rainfall events. The modifications to the existing PVMDP are described below:

- **Line D (From the PVSC to the upstream end of the facility, approximately 2,000 feet west of Indian Avenue on Nance Street).** Line D will consist of a concrete lined trapezoidal channel, an underground reinforced concrete box and an underground reinforced concrete pipe. While the proposed slope of the underground portions of this facility are less than the Riverside County Flood Control & Water Conservation District (RCFC&WCD) design standards, an agreement has been reached with RCFC&WCD to ensure this will be a District-maintained facility.
- **Line E (From the PVSC to the proposed Line E Detention Basin).** Line E will consist of a concrete lined trapezoidal channel, an underground reinforced concrete box, and an underground reinforced concrete pipe. While the proposed slope of a segment of this facility is less than the RCFC&WCD design standards, an agreement has been reached with RCFC&WCD to ensure this will be a District-maintained facility.
- **Line E Detention Basin.** This basin or basins will be located in the vicinity of the intersection of the Ramona Expressway and Interstate 215. Line E Detention Basin(s) is a key component to the proposed Line E system. The basin(s) will reduce peak flows and allow the majority of the downstream facility to be constructed in the street right-of-way. Line E Detention Basin(s) conceptually requires a surface area of approximately 9.5 acres with an approximate depth of 20 feet. The Line E Detention Basin(s) will be designed to handle a 100-year storm event. It is anticipated that the Line E Detention Basin(s) may serve as a dual use facility, recreational park and a flood control basin.
- **Line F (From the Line E Detention Basin to the Line F Detention Basin).** Line F will consist of an underground reinforced concrete pipe from the Line E Detention Basin to the Line F Detention Basin. The slope proposed for Line F meets the minimum RCFC&WCD design criteria, and as such would be a District-maintained facility.

- **Line F Detention Basin.** This Basin will be located in the vicinity of the intersection of Markham Street and the Interstate 215. Line F Detention Basin will reduce peak flows and allow a majority of the downstream facilities to be constructed within the street right-of-way. Line F Detention Basin conceptually requires a surface area of approximately 8 acres with an approximate depth of 20 feet. The Line F Detention Basin will be designed to handle a 100-year storm event. It is anticipated that the Line F Detention Basin may serve as a dual use facility, recreational park, and flood control basin.
- **Line H from the PVSC to the proposed Line H Detention Basin.** Line H is proposed to be an underground reinforced concrete box in Placentia Avenue, from the PVSC to the Line H Detention Basin. The slope proposed for Line H meets the minimum RCFC&WCD design criteria, and as such would be a District-maintained facility.
- **Line H Detention Basin.** This basin will be located in an area approximately 1,000 feet west of Indian Avenue and south of Walnut Street. The Line H Detention Basin will have a surface area of approximately 15.5 acres and be approximately 20 feet deep. The basin will reduce peak flows and allow the downstream Line H facility to be constructed within the street right-of-way. The Line H Basin will be designed with a holding capacity to accommodate the 100-year storm event. It is anticipated that the Line H Detention Basin will serve as a dual use facility. It will be used as a recreational park and a flood control basin.

In addition to the modified facilities discussed above, other adopted Perris Valley MDP facilities in the PVCC area will also need to be constructed to accommodate the drainage needs of the area. These facilities will be required to accommodate developed 100-year storm flows in the project area. It is anticipated that the above-described drainage systems will be constructed in conjunction with future development projects within the PVCC area. Once developed, runoff from the project area will be increased. This increased runoff is consistent with the existing PVMDP. Runoff will be discharged into the PVSC and ultimately into the San Jacinto River.

The proposed project includes the following land use applications: Specific Plan No. 08-10-0007; General Plan Amendment No. 08-10-0008; and Change of Zone No. 08-10-0009.

- **Specific Plan No. 08-10-0007** includes a land use plan, designation of planning areas, development standards, and design and landscaping guidelines associated with the development of PVCC.
- **General Plan Amendment No. 08-10-0008** proposes to amend the Land Use Element of the City of Perris General Plan to designate the properties within the project area as Specific Plan (SP).
- **Change of Zone 08-10-0009** proposes to change the designated zoning of the properties within the project area to SP.

The proposed project will be analyzed with a "programmatic" approach. The project proposes changes in land use designations from the Perris GP and the establishment of infrastructure plans to support development within the land use designations, but specific buildings, specific occupants or specific uses of buildings are not known at this time. The PVCC will guide future development throughout the project area.

Future development within the PVCC may require utility services provided by these purveyors:

Purveyor	Type of Services
Eastern Municipal Water District (EMWD)	water, sewer, recycled water
Verizon	telephone
Southern California Edison (SCE)	electricity
Southern California Gas Company	natural gas
CR&R Waste Services	solid waste disposal
Time Warner Communications	cable television and internet

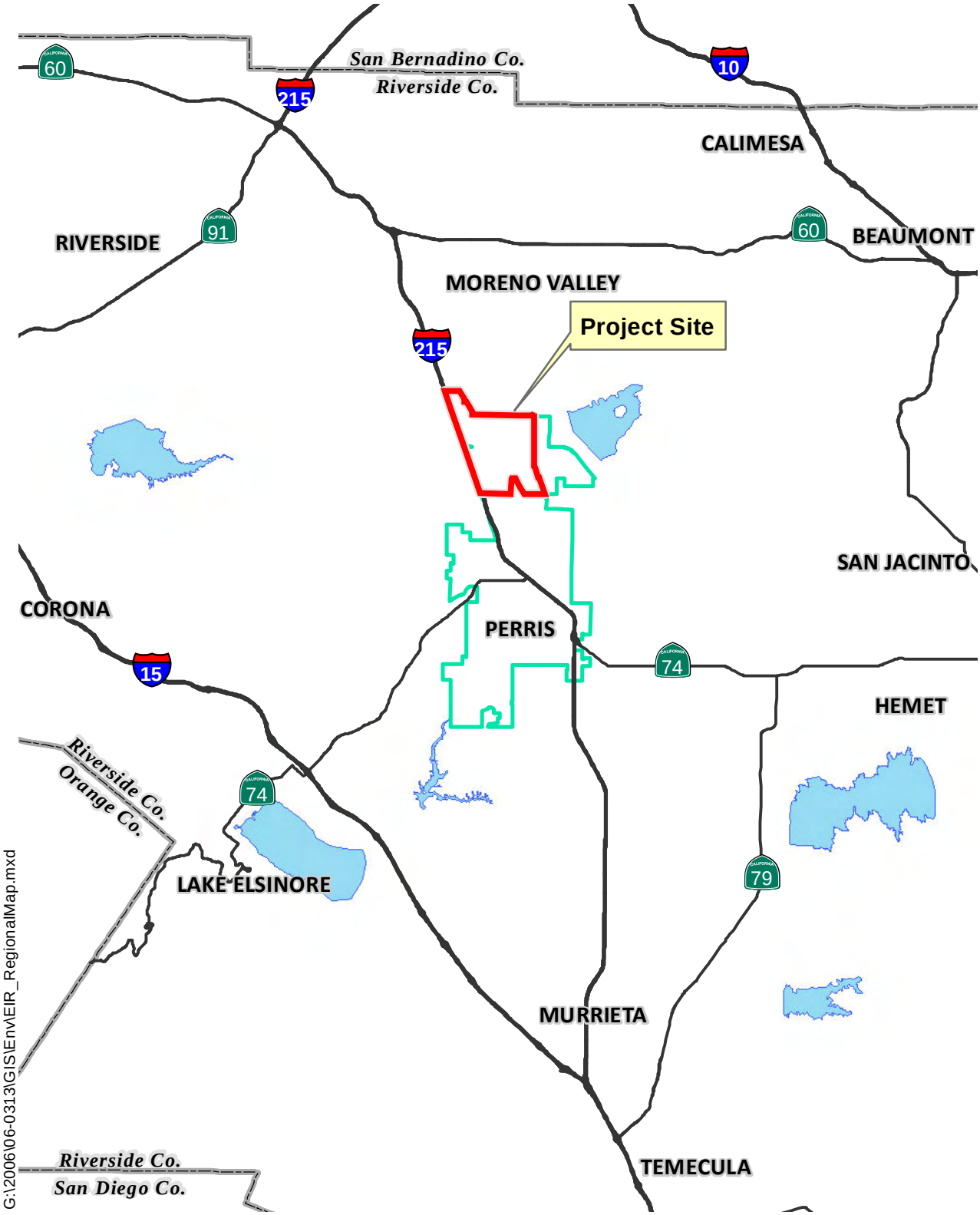
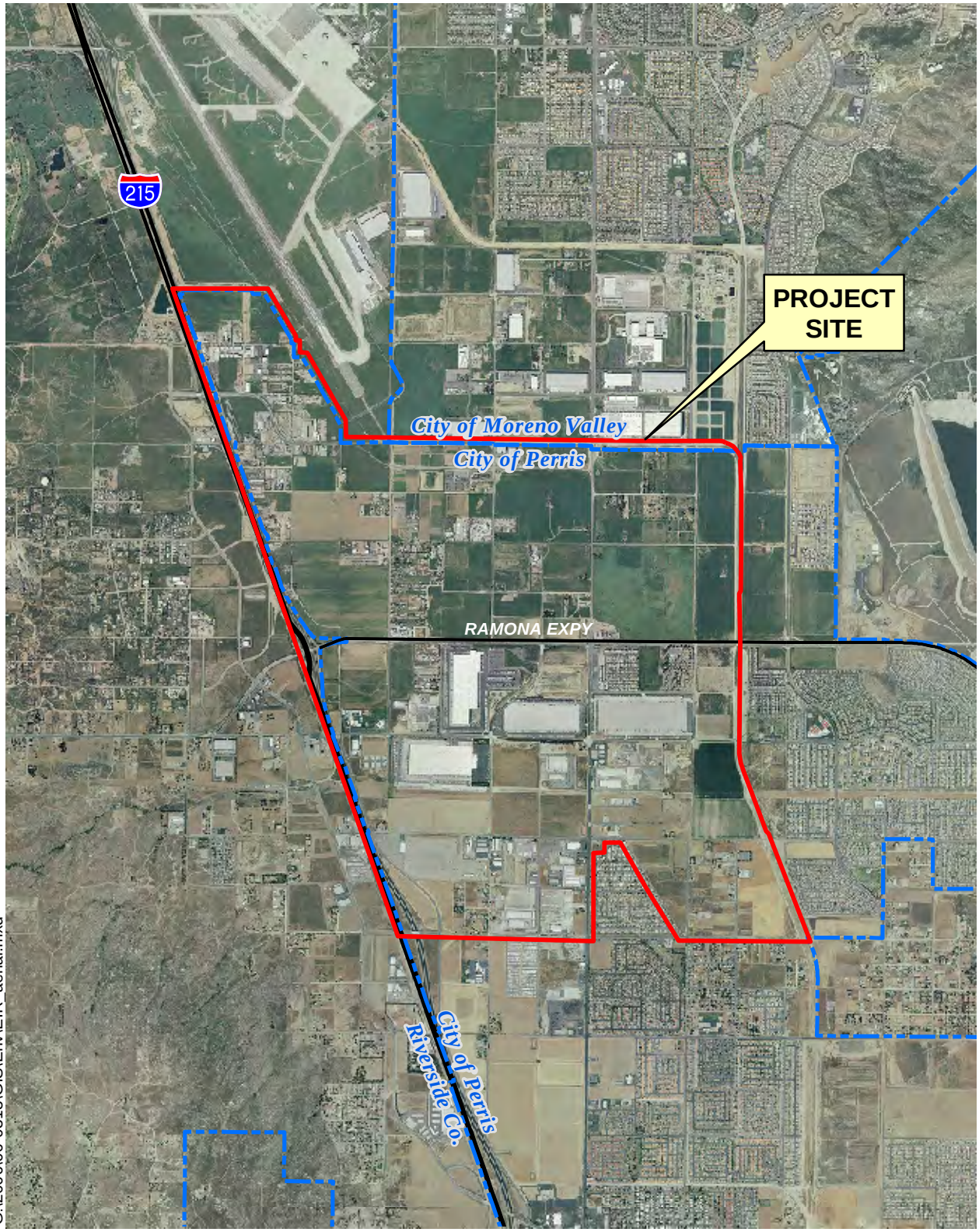


Figure 1.0-1
Regional Map



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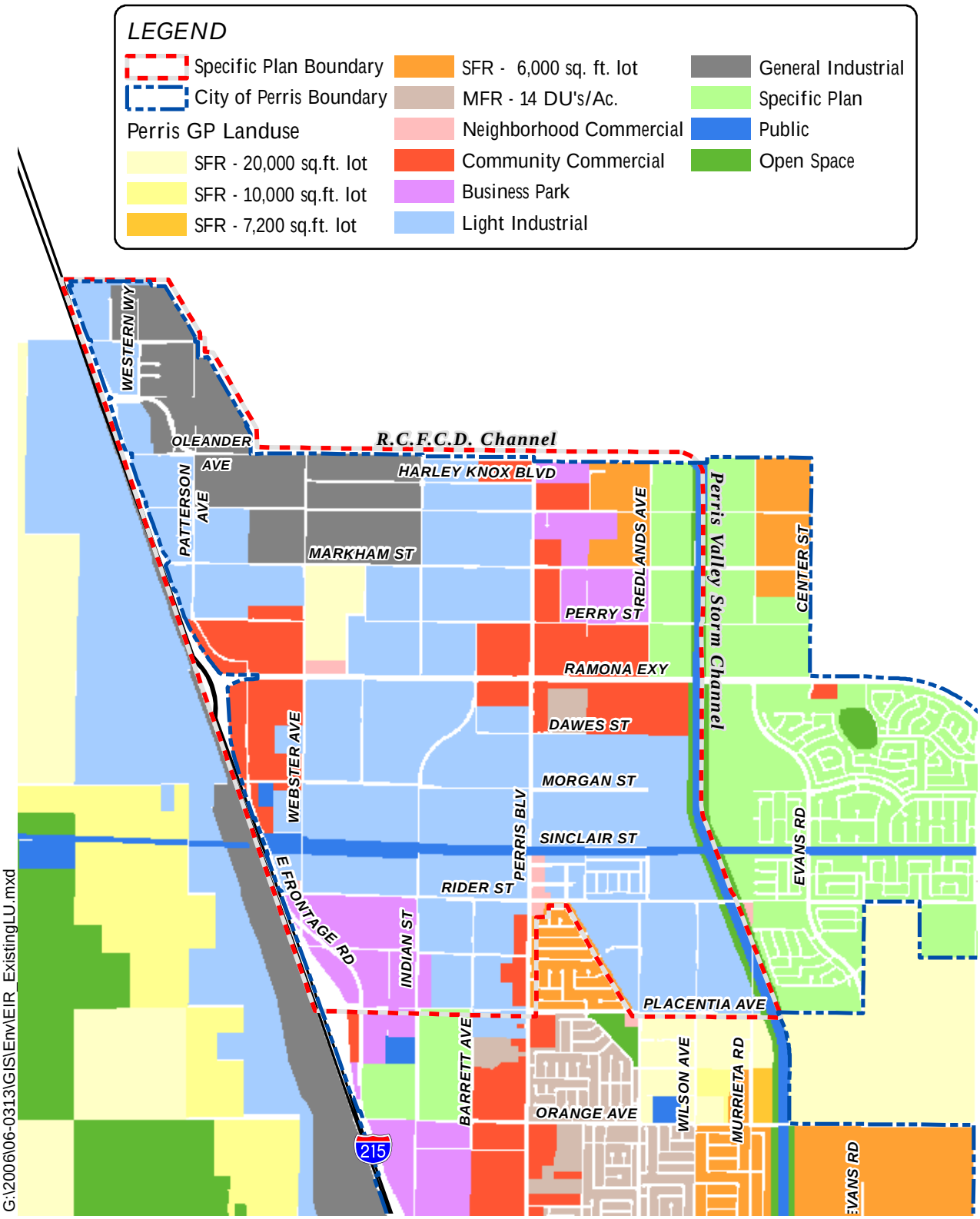
Imagery: Eagle Aerial, April 2010

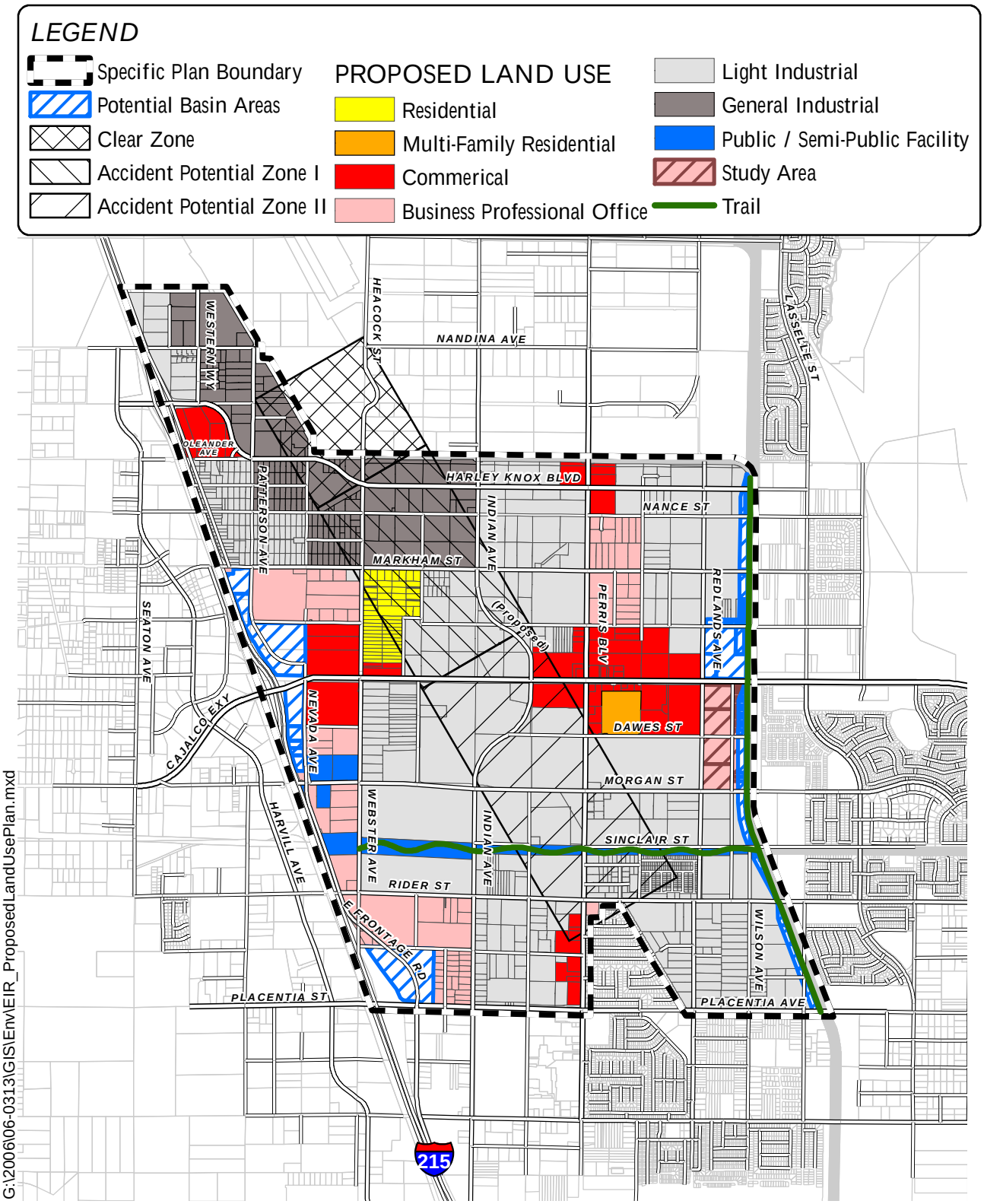
Figure 1.0-2
Aerial Photograph

0 1 2 Miles



Source: City of Perris General Plan, adopted April 2005, as amended through Feb. 2009.

Figure 1.0-3
Existing Land Use Designations



Source: City of Perris General Plan, adopted April 2005, as amended through Feb. 2009.

Figure 1.0-4
Proposed Land Use Plan

Project Objectives

A clear statement of project objectives allows for the analysis of reasonable alternatives to the proposed project. A range of reasonable alternatives, both on- and off-site, that would feasibly attain most of the basic project objectives, while avoiding or substantially lessening the significant effects of the project, must be analyzed per State *CEQA Guidelines* Section 15126.6.

The intent of the PVCC is to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and businesses of the City of Perris. To achieve this, the City has the following objectives for the PVCC SP:

- Allow the residents of the community to live and work under the same roof.
- Promote future Professional Office conversions.
- Ensure a balance of land uses that maintain and enhance the City's fiscal viability, economic diversity and environmental integrity.
- Encourage the development of joint-use and dual-use facilities.
- Set forth allowed land uses in a coordinated, comprehensive manner that interfaces with planned open space trails and public realms, as well as proximity to transportation facilities.
- Promote land use compatibility with the continued military and civilian operations at MARB.

Discretionary Actions and Approvals

The DEIR serves as an informational document for use by public agencies, the general public, and decision makers. This DEIR discusses the impacts of development pursuant to the proposed project and related components and analyzes project alternatives. This DEIR will be used by the City of Perris and responsible agencies in assessing impacts of the proposed project.

The following public entities and/or agencies may use this DEIR when considering the project:

- **City of Perris Planning Commission**
  a) Recommendation to the City of Perris City Council for Certification of the Final Environmental Impact Report for the project.
  b) Recommendation to the City of Perris City Council regarding approval of Zone Change 08-10-009 (ZC 08-10-009) to change the zoning of the properties within the project site to SP.
  c) Recommendation to the City of Perris City Council regarding approval of Specific Plan 08-10-007 (SP 08-10-007) to adopt Land Use Designations, plan for public facilities, adopt design guidelines and establish a development incentive program for approximately 3,500 gross acres.
  d) Recommendation to City of Perris City Council regarding approval of General Plan Amendment 08-10-008 (GPA 08-10-008) to amend the Land Use Element of the Perris GP to designate the project area as a SP.

- **City of Perris City Council**
  a) Certification of the Final Environmental Impact Report.
  b) Approval of Zone Change 08-10-009 (ZC 08-10-009) to change the zoning of the properties within the project site to SP.

c) Approval of Specific Plan 08-10-007 (SP 08-10-007) to adopt Land Use Designations, plan for public facilities, adopt design guidelines and establish a development incentive program for approximately 3,500 gross acres.

d) Approval of General Plan Amendment 08-10-008 (GPA 08-10-008) to amend the Land Use Element of the Perris GP to designate the properties within the project area as SP.

Other actions and permits may be needed to implement this project, including:

- **California Department of Transportation** (Caltrans)
  a) Issuance of encroachment permits related to street improvements within their rights-of-way.
- **Eastern Municipal Water District**
  a) Approval and construction of infrastructure (water and sewer) improvements.
- **Regional Water Quality Control Board**
  a) Issuance of a National Pollutant Discharge Elimination System (NPDES) Construction Permit (Order No. 99-08-DWQ).
- **Riverside County Airport Land Use Commission**
  a) Consistency Review
- **Riverside County Flood Control and Water Conservation District**
  a) Approval of hydrology/stormwater drainage system.
  b) Approval of the Master Drainage Plan
  c) Provide the terms and conditions of design, construction, inspection, transfer of rights-of-way, project credit in lieu of charges and reimbursement schedule which may apply to Perris Valley Area Drainage Plan facilities constructed as part of this project.

Areas of Controversy and Issues to be Resolved

State *CEQA Guidelines* Section 15123(b)(2) requires that areas of controversy known to the Lead Agency must be stated in the EIR summary. Issues of interest to the public and public agencies were identified during the 30-day public comment period of the Initial Study and Notice of Preparation (NOP), as well as comments received during the public scoping meeting that was held on September 16, 2009, for the proposed project at the City of Perris.

An NOP for the DEIR was distributed to state, regional, and local agencies on August 26, 2009, for a 30-day review period ending on September 25, 2009. The objective of distributing an NOP is to solicit public comment in order to identify and determine the full range and scope of issues of concern so that these issues might be fully examined in the DEIR. An Initial Study was distributed in tandem with the NOP. The Initial Study/NOP was distributed to the State Clearinghouse, as well as to the agencies, and organizations considered likely to be interested in the proposed project and its potential impacts. Comments received regarding the NOP were used to help identify impacts that could result from implementation of the proposed project.

The Initial Study, NOP, distribution list, and comment letters are included in Appendix A of this DEIR. By the close of the 30-day public review period, twenty-six responses to the NOP had been received which

will be addressed in the DEIR. A summary of NOP comments has been included in Section 2.0 (Introduction).
Section 15123(b)(3) of the State *CEQA Guidelines* requires that a DEIR identify issues to be resolved; this includes the choice among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved for the proposed project include decisions by the City of Perris as to whether:

- this DEIR adequately describes the potential environmental impacts of the proposed project;
- the recommended mitigation measures should be adopted or modified;
- additional mitigation measures need to be applied;
- the project should or should not be approved as proposed; or
- the project should be modified based on the alternatives considered in this DEIR.

Summary of Environmental Impacts

The following table, **Table 1.0-C, EIR Summary Matrix**, provides a summary of impacts related to the proposed project. The table identifies significant environmental impacts resulting from the project pursuant to the State *CEQA Guidelines* Section 15123(b)(1).

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
Agricultural Resources	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	No mitigation required.	Project-Specific and Cumulative: No impact.
Agricultural Resources	Conflict with existing zoning for agricultural use, or a Williamson Act Contract.	No mitigation required.	Project-Specific and Cumulative: No impact.
Agricultural Resources	Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Air Quality	Conflict with or obstruct implementation of the applicable air quality plan.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Air Quality	Violate any air quality standard or contribute substantially to an existing or projected air quality violation.	**MM Air 1:** To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis or other	Project-Specific and Cumulative: Significant after mitigation.

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts. **MM Air 2:** Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow. **MM Air 3:** To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to: • requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain), • keeping disturbed/loose soil moist at all times, • requiring trucks entering or leaving the site hauling	

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		dirt, sand, or soil, or other loose materials on public roads to be covered, • installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip, • posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the project site, • suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour, • appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation, • sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials, • replacement of ground cover in disturbed areas as quickly as possible. **MM Air 4:** Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes. **MM Air 5:** Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits. **MM Air 6:** The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or US EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit. **MM Air 7:** During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division. **MM Air 8:** Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. **MM Air 9:** To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g. bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The	

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project. **MM Air 10:** To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, CO Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts. **MM Air 11:** Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of five minutes. **MM Air 12:** Where transport refrigeration units (TRUs) are in use, electrical hookups will be installed at all loading and unloading stalls in order to allow TRUs with electric standby capabilities to use them.	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		MM Air 13: In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest of each implementing development project shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other state programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles. **MM Air 14:** Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits. **MM Air 18:** Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project.	
Air Quality	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for	Criteria Pollutants: Cumulative impacts will be significant, and a Statement of Overriding Consideration will be required prior to project approval. Greenhouse Gases: No mitigation required. However, the following mitigation measures, **MM Air 19** through **21**,	Criteria Pollutants: Project-Specific and Cumulative:

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
	ozone precursors).	will further reduce the less than significant impacts: **MM Air 19:** In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets. **MM Air 20:** Each implementing development project shall implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations. **MM Air 21:** Each implementing development project shall implement, at a minimum, use of water conserving appliances and fixtures (low-flush toilets, and low-flow shower heads and faucets) within all new residential developments.	Significant. Greenhouse Gases: Project-Specific and Cumulative: Less than significant impact before mitigation.
Air Quality	Expose sensitive receptors to substantial pollutant concentrations.	No mitigation required. However, **MM Air 1**, **10**, **11**, **12**, **13**, above, and **15**, **16** and **17**, below, require that future development projects be analyzed for their impacts and further reduce the less than significant impacts on sensitive receptors. **MM Air 15**: To identify potential implementing development project-specific impacts resulting from the use of diesel trucks, proposed implementing development projects that include an excess of 10 dock doors for a single building, a minimum of 100 truck trips per day, 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, and that are subject to	Project-Specific and Cumulative: Less than significant impact before mitigation.

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		CEQA and are located adjacent to sensitive land uses; shall have a facility-specific Health Risk Assessment performed to assess the diesel particulate matter impacts from mobile-source traffic generated by that implementing development project. The results of the Health Risk Assessment shall be included in the CEQA documentation for each implementing development project. **MM Air 16**: New sensitive land uses such as a hospital, medical offices, day care facilities, and fire stations to be located within the PVCC shall not be located closer than 500 feet to the I-215 freeway, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. If new sensitive land uses cannot meet this setback, they will be designed and conditioned to include mechanical ventilation systems with fresh air filtration. For operable windows or other sources of ambient air filtration, installation of a central HVAC (heating, ventilation, and air conditioning) system that includes high efficiency filters for particulates (MERV-13 or higher) or other similarly effective systems shall required. **MM Air 17**: New sensitive land uses such as residential, a hospital, medical offices, day care facilities, and fire stations shall not be located closer than 1,000 feet from any existing or proposed distribution center/warehouse facility which generates a minimum of 100 truck trips per day, or 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. If new sensitive land uses cannot meet this setback, they will be designed and conditioned to include mechanical ventilation systems with fresh air filtration. For operable windows or other sources of ambient air filtration, installation of a central HVAC (heating, ventilation, and air conditioning) system that includes high efficiency filters for particulates (MERV-13	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		or higher) or other similarly effective systems shall required.	
Air Quality	Create objectionable odors affecting a substantial number of people.	No mitigation required. However, **MM Air 4**, **6**, **11**, **12**, will further reduce the less than significant impacts.	Project-Specific and Cumulative: Less than significant impact before mitigation.
Biological Resources	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.	**MM Bio 1:** In order to avoid violation of the MBTA and the California Fish and Game Code, site-preparation activities (removal of trees and vegetation) for all PVCC implementing development and infrastructure projects shall be avoided, to the greatest extent possible, during the nesting season (generally February 1 to August 31) of potentially occurring native and migratory bird species. If site-preparation activities for an implementing project are proposed during the nesting/breeding season (February 1 to August 31), a pre-activity field survey shall be conducted by a qualified biologist prior to the issuance of grading permits for such project, to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone. If active nests are not located within the implementing project site and an appropriate buffer of 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or 100 feet of sensitive or protected songbird nests, construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, no grading or heavy equipment activity shall take place within at least 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected (under MBTA or California Fish and Game Code) bird nests (non-listed), or within 100 feet of sensitive or protected	Project-Specific and Cumulative: Less than significant impact after mitigation.

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		songbird nests until the nest is no longer active. **MM Bio 2:** Project-specific habitat assessments and focused surveys for burrowing owls will be conducted for implementing development or infrastructure projects within burrowing owl survey areas. A pre-construction survey for resident burrowing owls will also be conducted by a qualified biologist within 30 days prior to commencement of grading and construction activities within those portions of implementing project sites containing suitable burrowing owl habitat and for those properties within an implementing project site where the biologist could not gain access. If ground disturbing activities in these areas are delayed or suspended for more than 30 days after the pre-construction survey, the area shall be resurveyed for owls. The pre-construction survey and any relocation activity will be conducted in accordance with the current Burrowing Owl Instruction for the Western Riverside MSHCP. If active nests are identified on an implementing project site during the pre-construction survey, the nests shall be avoided or the owls actively or passively relocated. To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31), and 160 feet during the non-breeding season. If burrowing owls occupy any implementing project site and cannot be avoided, active or passive relocation shall be used to exclude owls from their burrows, as agreed to by the City of Perris Planning Department and the CDFG. Relocation shall be conducted outside the breeding season or once the young are able to leave the nest and fly. Passive relocation is the exclusion of owls from their burrows (outside the breeding season or once the young are able to leave the nest and fly) by installing	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		one-way doors in burrow entrances. These one-way doors allow the owl to exit the burrow, but not enter it. These doors shall be left in place 48 hours to ensure owls have left the burrow. Artificial burrows shall be provided nearby. The implementing project area shall be monitored daily for one week to confirm owl use of burrows before excavating burrows in the impact area. Burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible pipe shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. The CDFG shall be consulted prior to any active relocation to determine acceptable receiving sites available where this species has a greater chance of successful long-term relocation. If avoidance is infeasible, then a DBESP will be required, including associated relocation of burrowing owls. If conservation is not required, then owl relocation will still be required following accepted protocols. Take of active nests will be avoided, so it is strongly recommended that any relocation occur outside of the nesting season. **MM Bio 6:** Within areas of suitable habitat associated with the Narrow Endemic Plant Species Survey Area (NEPSSA) and Criteria Area Plant Species Survey Area (CAPSSA), focused plants surveys will be required for implementing projects. The MSHCP requires at least 90 percent avoidance of areas providing long-term conservation value for the NEPSSA and CAPSSA target species. If avoidance is not feasible, then such implementing projects will require the approval of a DBESP including appropriate mitigation.	
Biological Resources	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.	**MM Bio 6**, above, and **MM Bio 5**, below, are proposed to reduce this impact. **MM Bio 5:** Project-specific mapping of vernal pools for implementing projects will be required pursuant to Section 6.1.2 of the MSHCP. For areas not excluded as	Project-Specific and Cumulative: Less than significant impact after

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		artificially created, the MSHCP requires 100 percent avoidance of vernal pools. If for any implementing project avoidance is not feasible, then such implementing projects will require the approval of a DBESP including appropriate mitigation to offset the loss of functions and values as they pertain to the MSHCP and covered species. Vernal pools and other seasonal ponding depressions will also need to be evaluated for listed fairy shrimp.	mitigation.
Biological Resources	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	**MM Bio 3:** Project-specific delineations will be required to determine the limits of ACOE, RWQCB, and CDFG jurisdiction for implementing projects that may contain jurisdictional features. Impacts to jurisdictional waters will require authorization by the corresponding regulatory agency. If impacts are indicated in an implementing project-specific delineation, prior to the issuance of a grading permit, such implementing projects will obtain the necessary authorizations from the regulatory agencies for proposed impacts to jurisdictional waters. Authorizations may include, but are not limited to, a Section 404 permit from the ACOE, a Section 401 Water Quality Certification from the RWQCB, and a Section 1602 Streambed Alteration Agreement from CDFG. **MM Bio 4:** Project-specific mapping of riparian and unvegetated riverine features will be required for implementing projects pursuant to Section 6.1.2 of the MSHCP. For areas not excluded as artificially created, the MSHCP requires 100 percent avoidance of riparian/riverine areas. If for any implementing project avoidance is not feasible, then such implementing projects will require the approval of a DBESP including appropriate mitigation to offset the loss of functions and values as they pertain to the MSHCP covered species. Riparian vegetation will also need to be evaluated for the least Bell's vireo, southwestern willow flycatcher, and	Project-Specific and Cumulative: Less than significant impact after mitigation.

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		western yellow-billed cuckoo.	
Biological Resources	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan.	**MM Bio 1** through **MM Bio 6**, above are proposed to reduce this impact.	Project-Specific and Cumulative: Less than significant impact after mitigation.
Biological Resources	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or establish native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	**No mitigation required.**	Project-Specific and Cumulative: Less than significant impact.
Biological Resources	Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Cultural Resources	The project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the *CEQA Guidelines*.	**MM Cultural 1:** Prior to the consideration by the City of Perris of implementing development or infrastructure projects for properties that are vacant, undeveloped, or considered to be sensitive for cultural resources by the City of Perris Planning Division, a Phase I Cultural Resources Study of the subject property prepared in accordance with the protocol of the City of Perris by a professional archeologist[1] shall be submitted to the City of Perris Planning Division for review and approval. The Phase I Cultural Resources Study shall determine whether	Project-Specific and Cumulative: Less than significant impact after mitigation.

[1] For the purpose of this measure, the City of Perris considers professional archaeologists to be those who meet the United States Secretary of the Interior's standards for recognition as a professional, including an advanced degree in anthropology, archaeology, or a related field, and the local experience necessary to evaluate the specific project. The professional archaeologist must also meet the minimum criteria for recognition by the Register for Professional Archaeologists (RPA), although membership is not required.

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		the subject implementing development would potentially cause a substantial adverse change to any significant paleontological, archaeological, or historic resources. The Phase I Cultural Resources Study shall be prepared to meet the standards established by Riverside County and shall, at a minimum, include the results of the following: 1. Records searches at the Eastern Information Center (EIC), the National or State Registry of Historic Places and any appropriate public, private, and tribal archives. 2. Sacred Lands File record search with the NAHC followed by project scoping with tribes recommended by the NAHC. 3. Field survey of the implementing development or infrastructure project site. The proponents of the subject implementing development projects and the professional archaeologists are also encouraged to contact the local Native American tribes (as identified by the California Native Heritage Commission and the City of Perris) to obtain input regarding the potential for native American resources to occur at the project site. Measures shall be identified to mitigate the known and potential significant effects of the implementing development or infrastructure project, if any. Mitigation for historic resources shall be considered in the following order of preference: 1. Avoidance. 2. Changes to the structure provided pursuant to the Secretary of Interior's Standards. 3. Relocation of the structure. 4. Recordation of the structure to Historic American	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		Buildings Survey (HABS)/Historic American Engineering Record (HAER) standard if demolition is allowed. Avoidance is the preferred treatment for known significant prehistoric and historical archaeological sites, and sites containing Native American human remains. Where feasible, plans for implementing projects shall be developed to avoid known significant archaeological resources and sites containing human remains. Where avoidance of construction impacts is possible, the implementing projects shall be designed and landscaped in a manner, which will ensure that indirect impacts from increased public availability to these sites are avoided. Where avoidance is selected, archaeological resource sites and sites containing Native American human remains shall be placed within permanent conservation easements or dedicated open space areas. The Phase I Cultural Resources Study submitted for each implementing development or infrastructure project shall have been completed no more than three (3) years prior to the submittal of the application for the subject implementing development project or the start of construction of an implementing infrastructure project. **MM Cultural 3:** Prior to grading for projects requiring subsurface excavation that exceeds five (5)feet in depth, proponents of the subject implementing development projects shall retain a professional paleontologist to verify implementation of the mitigation measures identified in the approved Phase I Cultural Resources Study and to monitor the subsurface excavation that exceed five (5) feet in depth. Selection of the paleontologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the paleontologist has been approved by the City. Monitoring should be restricted to undisturbed subsurface	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		areas of older alluvium, which might be present below the surface. The paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The paleontologist shall also remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall have the power to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens. Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved. Specimens shall be identified and curated and placed into an accredited repository (such as the Western Science Center or the Riverside Metropolitan Museum) with permanent curation and retrievable storage. A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to paleontological resources. **MM Cultural 4:** In the event that human remains (or remains that may be human) are discovered at the implementing development project site during grading or earthmoving, the construction contractors shall immediately stop all activities in the immediate area of the find. The project proponent shall then inform the City of Perris Planning Division immediately and retain a professional archaeologist to assess the find. In accordance with the California Health and Safety Code, the City of Perris will contact the County Coroner's office within 24 hours and the coroner will be permitted to examine the	

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		remains. If the coroner determines that the remains are of Native American origin, the coroner will report to the Native American Heritage Commission and the Commission will identify the "Most Likely Descendent" (MLD).[2] Despite the affiliation of any Native American observers at the site, the Commission's identification of the MLD will stand. The disposition of the remains will be determined in consultation with the City of Perris, the project proponent, and the MLD. The City of Perris will be responsible for the final decision, based upon input from the various stakeholders. If the human remains are determined to be other than Native American in origin, but still of archaeological value, the remains will be recovered for analysis and subject to curation or reburial at the expense of the project proponent. If deemed appropriate, the remains will be recovered by the coroner and handled through the Coroner's Office. Coordination with the Coroner's Office will be through the City of Perris and in consultation with the various stakeholders. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations will be documented by the consulting archaeologist in conjunction with the various	

[2] The "Most Likely Descendent" ("MLD") is a reference used by the California Native American Heritage Commission to identify the individual or population most likely associated with any human remains that may be identified within a given project area. Under California Public Resources Code section 5097.98, the Native American Heritage Commission has the authority to name the MLD for any specific project and this identification is based on a report of Native American remains through the County Coroner's office. In the case of the City of Perris, the Native American Heritage Commission may identify any Luiseño descendent, but generally names the Soboba or Pechanga bands of Mission Indians (both Luiseño populations) and alternates between the two groups. The City of Perris will recognize any MLD identified by the Native American Heritage Commission without giving preference to any particular population. In cases where the Native American Heritage Commission is not tasked with the identification of a Native American representative, the City of Perris reserves the right to make an independent decision based upon the nature of the proposed project.

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		stakeholders.	
Cultural Resources	The project would cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the *CEQA Guidelines*.	**MM Cultural 1, 3, and 4,** above, and **MM Cultural 2** below proposed to reduce this impact. **MM Cultural 2:** If the Phase I Cultural Resources Study required under **MM Cultural 1** determines that monitoring during construction by a professional archaeologist is needed for the implementing development project, the project proponent shall retain a professional archaeologist prior to the issuance of grading permits. The task of the archaeologist shall be to verify implementation of the mitigation measures identified in the approved Phase I Cultural Resources Study and to monitor the initial ground-altering activities[3] at the subject site for the unearthing of previously unknown archaeological and/or cultural resources. Selection of the archaeologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the archaeologist has been approved by the City. The archaeological monitor shall be responsible for maintaining daily field notes, a photographic record, and reporting all finds in a timely manner. The archaeologist shall also be equipped to record and salvage cultural resources that may be unearthed during initial ground-altering activities. The archaeologist shall be empowered to temporarily halt or divert construction equipment to allow recording and removal of the unearthed resources. Depending on the nature of the artifacts, the handling will differ. However, it is understood that all artifacts with the exception of human remains and related grave goods or sacred objects belong to the property owner. All artifacts discovered at the development site shall be	Project-Specific and Cumulative: Less than significant impact after mitigation.

[3] For the purpose of this measure, ground-altering activities include, but are not limited to, debris removal, vegetation removal, tree removal, grading, trenching, or other site preparation activities. Initial ground-altering activities refer to the first time that the existing materials are altered by construction-related activities. Materials that have already been disturbed by construction-related activities do not require subsequent monitoring.

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		inventoried and analyzed by the professional archaeologist. If any artifacts of Native American origin are discovered, a Native American observer of Luiseño descent shall be asked to help analyze the Native American artifacts for identification as everyday life and/or religious or sacred items, cultural affiliation, temporal placement, and function, as deemed possible. All items found in association with Native American human remains will be considered grave goods or sacred in origin and subject to special handling (see **MM Cultural 4**). The remainder of the Native American artifact assemblage will be prepared in a manner for curation and the archaeological consultant will deliver the materials to an accredited curation facility approved by the City of Perris within a reasonable amount of time. Non-Native American artifacts will be inventoried, assessed, and analyzed for cultural affiliation, personal affiliation (prior ownership), function, and temporal placement. Subsequent to analysis and reporting, these artifacts will be subjected to curation or returned to the property owner, as deemed appropriate. Once ground-altering activities have ceased or the professional archaeologist determines that monitoring activities are no longer necessary, monitoring activities may be discontinued following notification to the City of Perris Planning Division. A report of findings, including an itemized inventory of recovered artifacts, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered artifacts. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to archaeological and/or cultural resources.	
Cultural	The project would directly or indirectly destroy a	**MM Cultural 3** and **4**, above, is proposed to reduce this	Project-Specific

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
Resources	unique paleontological resource or site or unique geologic feature.	impact.	and Cumulative: Less than significant impact after mitigation.
Geology and Soils	Expose people or property to substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	**MM Geo 1:** Concurrent with the City of Perris' review of implementing development projects, the project proponent of the implementing development project shall submit a geotechnical report prepared by a registered geotechnical engineer and a qualified engineering geologist to the City of Perris Public Works/Engineering Administration Division for its review and approval. The geotechnical report shall assess the soil stability within the implementing development project affecting individual lots and building pads, and shall describe the methodology (e.g., overexcavated, backfilled, compaction) being used to implement the project's design.	Project-Specific and Cumulative: Less than significant impact after mitigation.
Geology and Soils	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	**MM Geo 1**, above, is proposed to reduce this impact.	Project-Specific and Cumulative: Less than significant impact after mitigation.
Hazards and Hazardous Materials	Create a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Hazards and Hazardous Materials	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous	No mitigation required.	Project-Specific and Cumulative:

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
	materials into the environment.		Less than significant impact.
Hazards and Hazardous Materials	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	**MM Haz 1:** Any proposed industrial uses located within one-quarter mile of Val Verde High School (located at 972 Morgan Street, between Nevada Road and Webster Avenue, Perris, CA) or any other existing or proposed school shall perform project-level CEQA review to determine the potential for project-specific impacts associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste.	Project-Specific and Cumulative: Less than significant impact after mitigation.
Hazards and Hazardous Materials	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.	**MM Haz 2:** Prior to the recordation of a final map, issuance of a building permit, or conveyance to an entity exempt from the Subdivision Map Act, whichever occurs first, the landowner shall convey an avigation easement to the MARB. **MM Haz 3:** Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky or above the horizontal plane. **MM Haz 4:** The following notice shall be provided to all potential purchasers and tenants: "This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example, noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.	Project-Specific and Cumulative: Less than significant impact after mitigation.

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		Business & Profession Code 11010 13(A)" **MM Haz 5:** The following uses shall be prohibited: (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator. (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport. (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation. (e) All retention and water quality basins shall be designed to dewater within 48 hours of a rainfall event. **MM Haz 6:** A minimum of 45 days prior to submittal of an application for a building permit for an implementing development project, the implementing development project applicant shall consult with the City of Perris Planning Department in order to determine whether any implementing project-related vertical structures or construction equipment will encroach into the 100-to-1 imaginary surface surrounding the MARB. If it is determined that there will be an encroachment into the	

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
		100-to-1 imaginary surface, the implementing development project applicant shall file a FAA Form 7460-1, Notice of Proposed Construction or Alteration. If FAA determines that the implementing development project would potentially be an obstruction unless reduced to a specified height, the implementing development project applicant and the Perris Planning Division will work with FAA to resolve any adverse effects on aeronautical operations.	
Hydrology and Water Quality	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Hydrology and Water Quality	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Hydrology and Water Quality	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on or off site.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Hydrology and Water Quality	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Hydrology and Water Quality	Place within a 100-year flood hazard area structures that would impede or redirect flood flows.	No mitigation required.	Project-Specific and Cumulative:

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
			Less than significant impact.
Hydrology and Water Quality	Expose people or structures to a significant loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or a dam.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Land Use and Planning	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinances) adopted for the purpose of avoiding or mitigation an environmental effect.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Land Use and Planning	Conflict with any applicable habitat conservation plan or natural community conservation plan. *Due to the repetitive nature of this threshold with* Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance, *which is analyzed in the Biological Resources section of this DEIR, please see said threshold under Biological Resources for the impact determination associated with this threshold.*	*See threshold* Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance *in the Biological Resources impact category.*	*See Biological Resources.*
Noise	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	**MM Noise 5:** New sensitive land uses, including residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, education facilities, and libraries, to be located within the PVCC shall be protected from excessive noise, including existing and projected noise. Attenuation shall be provided to ensure that noise levels do not exceed an exterior standard of 60 dBA (65 dBA is conditionally acceptable) in outdoor living areas and an interior standard of 45 dBA in all habitable rooms. Specifically, special consideration shall be given to land uses abutting Ramona Expressway from Redlands	Project-Specific and Cumulative: Less than significant impact after mitigation.

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		Avenue to Evans Road and from Evans Road to Bradley Road; Rider Street from Evans Road to Bradley Road; Placentia Avenue from Perris Boulevard to Redlands Avenue, from Redlands Avenue to Wilson Avenue, from Wilson Avenue to Murrieta Road, and from Murrieta Road to Evans Road;. Perris Boulevard from Orange Avenue to Placentia Avenue and from San Michele Road to Krameria Avenue; and Redlands Avenue from Nuevo Road to Citrus Avenue, from Citrus Avenue to Orange Avenue and from Orange Avenue to Placentia Avenue.	
Noise	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	**MM Noise 1:** During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers consistent with manufacturer's standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site. **MM Noise 2:** During construction, stationary construction equipment, stockpiling and vehicle staging areas will be placed a minimum of 446 feet away from the closet sensitive receptor. **MM Noise 3:** No combustion-powered equipment, such as pumps or generators, shall be allowed to operate within 446 feet of any occupied residence unless the equipment is surrounded by a noise protection barrier. **MM Noise 4:** Construction contractors of implementing development projects shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.	Project-Specific and Cumulative: Less than significant impact.

Table 1.0-C, EIR Summary Matrix

Impact Category	Impact/Threshold	Mitigation Measure	Impact After Mitigation
Noise	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Noise	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.;	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Noise	Exposure of people to severe noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Transportation and Traffic	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) or exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for the designated roads or highways.	**MM Trans 1:** Future implementing development projects shall construct on-site roadway improvements pursuant to the general alignments and right-of-way sections set forth in the PVCC Circulation Plan, except where said improvements have previously been constructed. **MM Trans 2:** Sight distance at the project entrance roadway of each implementing development project shall be reviewed with respect to standard City of Perris sight distance standards at the time of preparation of final grading, landscape and street improvement plans. **MM Trans 3:** Each implementing development project shall participate in the phased construction of off-site traffic signals through payment of that project's fair share of traffic signal mitigation fees and the cost of other off-site improvements through payment of fair share mitigation fees which include TUMF (Transportation	Project-Specific and Cumulative: Less than significant impact although potential impacts related to Interstate 215 will be **significant and unavoidable**.

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		Uniform Mitigation Fee), DIF (Development Impact Fee) and the NPRBBD (North Perris Road and Bridge Benefit District). The fees shall be collected and utilized as needed by the City of Perris to construct the improvements necessary to maintain the required level of service and build or improve roads to their build-out level. **MM Trans 4:** Prior to the approval of individual implementing development projects, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing in the project area that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the project area, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalk and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project. **MM Trans 5:** Bike racks shall be installed in all parking lots in compliance with City of Perris standards. **MM Trans 6:** Each implementing development project that is located adjacent to the MWD Trail shall coordinate with the City of Perris Parks and Recreation Department to determine the development plan for the trail. **MM Trans 7:** Implementing project-level traffic impact studies shall be required for all subsequent implementing development proposals within the boundaries of the PVCC as approved by the City of Perris Engineering	

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
		Department. These subsequent traffic studies shall identify specific project impacts and needed roadway improvements to be constructed in conjunction with each implementing development project. All intersection spacing for individual tracts or maps shall conform to the minimum City intersection spacing standards. All turn pocket lengths shall conform at least to the minimum City turn pocket length standards. If any of the proposed improvements are found to be infeasible, the implementing development project applicant will be required to provide alternative feasible improvements to achieve levels of service satisfactory to the City. **MM Trans 8:** Proposed mitigation measures resulting from project-level traffic impact studies shall be coordinated with the NPRBBD to ensure that they are in conformance with the ultimate improvements planned by the NPRBBD. The applicant shall be eligible to receive proportional credits against the NPRBBD for construction of project level mitigation that is included in the NPRBBD.	
Transportation and Traffic	Conflict with adopted policies, plans, or programs supporting alternative transportation.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Utilities and Service Systems	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Utilities and	Require or result in the construction of new storm	No mitigation required.	Project-Specific

Table 1.0-C, EIR Summary Matrix			
Impact Category	**Impact/Threshold**	**Mitigation Measure**	**Impact After Mitigation**
Service Systems	water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.		and Cumulative: Less than significant impact.
Utilities and Service Systems	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Utilities and Service Systems	Result in a determination by the wastewater treatment provider, which serves the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.
Utilities and Service Systems	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	No mitigation required.	Project-Specific and Cumulative: Less than significant impact.

Summary of Project Alternatives

The State *CEQA Guidelines*, Section 15126.6, identify the parameters within which consideration and discussion of alternatives to the proposed project should occur. As stated in this section of the guidelines, alternatives must focus on those that are reasonably feasible and which attain most of the basic objectives of the project. Each alternative must be capable of avoiding or substantially lessening any significant effects of the proposed project.

The project, as proposed, is anticipated to result in unavoidable adverse project-related and cumulative impacts related to air quality and noise and cumulative impacts related to traffic on Interstate 215. Cumulative traffic impacts result from the significant and unavoidable impacts to Interstate 215 identified by the Perris GP EIR. Anticipated impacts to air quality by the proposed project will be a result of the vehicle travel within the project area. Therefore, alternatives with higher intensities of commercial, industrial or business park uses on the same acreage would clearly result in more traffic, and therefore, poorer air quality than the proposed project, and were not considered further.

Similarly, any alternatives which considered a different land use mix than the proposed project, such as those removing or increasing existing residential, were rejected because they would not meet most of the project objectives and would not lessen or avoid the project's impacts related to air quality and cumulative traffic-related impacts to Interstate 215. This is because the surrounding area is also predominantly designated for industrial uses and has associated truck traffic. Therefore, removing or increasing existing residential uses may increase potential impacts to the residential areas related to truck traffic, the potential transport and use of hazardous materials, and airport hazard-related impacts to or from MARB. Therefore, such alternatives were not considered in this DEIR.

Given the nature of the proposed development, an alternative location will not alleviate these impacts, as it merely shifts the impacts to another location, not reduce or eliminate them. The location of the project is appropriate because the uses proposed are substantially similar to the site's Perris GP designation and are further removed from the more sensitive land uses. The project area is also in close proximity to a freeway. Therefore, an alternative location is not considered a feasible alternative to the proposed project.

It is required under CEQA that alternative site(s) be evaluated if any feasible sites exist where significant impacts can be lessened. The environmental impacts of development on any other site in the City are expected to be similar to those of the proposed project. Namely, any other physical site location would still result in air quality impacts and cumulative traffic related impacts to Interstate 215 and depending on the site's current use. Some sites would be closer to larger residential projects and sensitive land uses and could offer more potential hazard-related impacts than the project. Additionally, other sites, depending on their biological or cultural resources may have similar or worse impacts than the project as well. Given the nature of the proposed development, an alternative location will not alleviate the impacts because a relocation of the proposed project would also enable the project site to be developed pursuant to the Perris GP land use designations which include similar uses. In addition, development of an alternative site nearby simply moves the potential impacts. Therefore, an alternative location that would meet most of the basic project objectives would not meet the CEQA definition of an alternative.

Per State *CEQA Guidelines* Section 15126.6 (3), the "no project" alternative could take two forms: 1) No change from the existing uses (includes agricultural); or 2) Development into already approved land uses. The Perris GP Land Use Map designates the project site for a mix of uses, but does not include agricultural uses. Since both "no project" alternatives are significantly different, both forms of the No Project alternative will be addressed in this section.

The Alterative Section of the DEIR (Section 6.0) will look at 1) a No Project Alternative that retains the existing uses of the site, but includes no new development, 2) a No Project Alternative that considers development pursuant to Perris GP land use designations, and 3) a Reduced Commercial Alternative.

Table 1.0-D, Impact Comparison of Alternatives Matrix, gives a summary of all project alternatives considered in detail in the EIR and identifies the areas of potential environmental effects per CEQA and ranks each alternative as better, the same or worse than the proposed project with respect to each area.

Table 1.0-D, Impact Comparison of Alternatives Matrix

Environmental Issue	Proposed Project PVCC	Alternative 1 No Project – Existing Land Use	Alternative 2 No Project – Existing Perris GP Land Use Designation	Alternative 3 Reduced Commercial
Agricultural Resources	No significant impact based on applicable findings contained in the Perris GP EIR.	**Same** – Some continued agricultural uses. No significant impact.	**Same** – No significant impact based on applicable findings contained in the Perris GP EIR.	**Same** – No significant impact based on applicable findings contained in the Perris GP EIR.
Air Quality	Significant – Will exceed SCAQMD short-term and long-term thresholds for criteria pollutants. Cumulatively significant – contributes to exceedance of air quality standards which the Basin is non-attainment. GHG emissions were found to be potentially cumulatively considerable after mitigation in the absence of regulatory thresholds and due to the significant criteria pollutant impacts.	**Better** – No development results in any increase in ambient air quality conditions. There would be no change in the emission of greenhouse gases related to use of the project site.	**Worse** – The existing Perris GP land uses will result in nine percent more daily vehicle trips which in turn increase criteria pollutant and GHG emissions. The resulting emissions would remain above established thresholds, and cumulative impacts related to criteria pollutant emissions released in an area that already experiences problems regarding air quality. Cumulatively significant – This alternative still contributes to the exceedance of criteria pollutant air quality standards. Conservatively, it is assumed that significant criteria pollutant impacts will result in	**Better** – Although reduced commercial building square footage reduces the amount of daily trips 12 percent from vehicles related to the proposed project which in turn reduce criteria pollutant and GHG emissions, this alternative would still result in emissions exceeding established thresholds, and cumulative impacts related to criteria pollutant emissions released in an area that already experiences problems regarding air quality. Cumulatively significant – Although it has fewer emissions, this alternative contributes to exceedance of air quality standards. Conservatively, it is

Table 1.0-D, Impact Comparison of Alternatives Matrix

Environmental Issue	Proposed Project PVCC	Alternative 1 No Project – Existing Land Use	Alternative 2 No Project – Existing Perris GP Land Use Designation	Alternative 3 Reduced Commercial
			significant GHG emissions that are cumulatively considerable.	assumed that significant criteria pollutant impacts will result in significant GHG emissions that are cumulatively considerable.
Biological Resources	Less than significant project impacts to potential habitat. Project does not conflict with the MSHCP.	**Better** – No further development within the project area. No significant impacts are expected.	**Same** – This alternative would result in the same less than significant impacts to potential habitat. Development under this alternative would also be consistent with the MSHCP.	**Same** – This alternative would result in the same less than significant impacts to potential habitat. Development under this alternative would also be consistent with the MSHCP.
Cultural Resources	Less than significant impacts to cultural resources without mitigation measures incorporated. However, mitigation measures ensure no significant impacts occur.	**Better** – Although the site is not expected to harbor significant cultural resources, under this alternative there would not be the prospect of uncovering unknown resources, as no further development would be proposed.	**Same** – This alternative would have the same less than significant impacts, with and without implementation of mitigation measures.	**Same** – This alternative would have the same less than significant impacts, with and without implementation of mitigation measures.
Geology and Soils	Less than significant impacts related to seismic shaking and ground failure and soil instability with implementation of mitigation measures.	**Same** – No significant impact.	**Same** – This alternative would have the same less than significant impacts as the proposed project, with implementation of mitigation measures.	**Same** – This alternative would have the same less than significant impacts as the proposed project, with implementation of mitigation measures.

Table 1.0-D, Impact Comparison of Alternatives Matrix

Environmental Issue	Proposed Project PVCC	Alternative 1 No Project – Existing Land Use	Alternative 2 No Project – Existing Perris GP Land Use Designation	Alternative 3 Reduced Commercial
Hazards and Hazardous Materials	Less than significant impacts related to the routine use or transport of hazardous materials, accidental release of hazardous materials with no mitigation. No significant impact related to hazardous materials within one quarter mile of a school or airport-related hazards, with mitigation.	**Same** – No further development within the project area. No significant impacts due to site characteristics or due to land uses near schools and airports.	**Same** – No significant impacts due to site characteristics. No significant impact related to hazardous materials within one quarter mile of a school or airport-related hazards, with mitigation.	**Same** – No significant impacts due to site characteristics. No significant impact related to hazardous materials within one quarter mile of a school or airport-related hazards, with mitigation.
Hydrology and Water Quality	Less than significant project impacts with implementation of WQMP and NPDES permit requirements. Project also includes storm drains and detention basins as part of the project which reduces impacts to water quality and flooding.	**Better** for Water Quality – The project site has many vacant parcels and land used for agricultural uses. The undeveloped, unpaved nature of these areas provides for infiltration of pollutants and so this alternative would have better water quality impacts than the proposed project. **Worse** for Hydrology – Due to the area's relatively flat terrain and the lack of regional drainage infrastructure, flooding occurs in both major and minor storm events. With no development, regional drainage infrastructure will not be constructed.	**Same** – This alternative would have the same less than significant impacts as the proposed project, with implementation of WQMP and NPDES permit requirements. This alternative would still include storm drains and detention basins to address the water quality and flood control needs.	**Same** – This alternative would have the same less than significant impacts as the proposed project, with implementation of WQMP and NPDES permit requirements. This alternative would still include storm drains and detention basins to address the water quality and flood control needs.

Table 1.0-D, Impact Comparison of Alternatives Matrix

Environmental Issue	Proposed Project PVCC	Alternative 1 No Project – Existing Land Use	Alternative 2 No Project – Existing Perris GP Land Use Designation	Alternative 3 Reduced Commercial
Land Use and Planning	Consistent with all applicable Perris GP policies and regional plans. No significant impact.	**Worse –** Without further development as anticipated by the City of Perris including conversion of all agricultural uses, goals and policies for the Perris GP would not be met.	**Same –** This alternative would have the same less than significant impacts as the proposed project.	**Same –** This alternative would have the same less than significant impacts as the proposed project.
Noise	Less than significant construction-related impacts with mitigation measures incorporated. Significant project-level and cumulative traffic-related noise due to traffic that exceeds the 3.0 dBA significance threshold along 12 roadway segments adjacent to sensitive receptors and exceeds the 5.0 dBA significance threshold along 18 other roadway segments	**Better** – Without further development, there is no short term less than significant construction-related noise impacts and there will be no project-related increase in traffic noise and other operational noise.	**Worse –** This alternative would have the same less than significant construction-related impacts as the proposed project. However, inasmuch as this alternative would have approximately nine percent more daily trips compared to the proposed project, significant project-level and cumulative traffic-related noise would be slightly higher than that of the proposed project.	**Better –** This alternative would have the same less than significant impacts construction-related impacts as the proposed project This alternative would result in a 12 percent reduction of project-generated traffic. Therefore, potential increases in noise-levels along roadway segments would be less than those from the proposed project; although project-level and cumulative traffic-related noise increases would still exceed established thresholds and would be significant.
Transportation and Traffic	Less than significant project impacts without implementation of mitigation measures. However, mitigation measures further reduce project impacts. Cumulative – potential cumulative	**Better** – No further increase in traffic originating from the project area. **Same** – Significant cumulative impacts from Interstate 215 will still occur.	**Worse**– This alternative would create nine percent more daily trips compared to the project, which translates to more traffic impacts to local roadways as analyzed in the Perris GP EIR.	**Better** –Reduction in the commercial square footage would result in a 12 percent reduction of project-generated traffic. **Same** – Significant cumulative impacts from Interstate 215 will still occur.

Table 1.0-D, Impact Comparison of Alternatives Matrix

Environmental Issue	Proposed Project PVCC	Alternative 1 No Project – Existing Land Use	Alternative 2 No Project – Existing Perris GP Land Use Designation	Alternative 3 Reduced Commercial
	impacts related to Interstate 215 will be significant and unavoidable in accordance with the applicable findings contained in the Perris GP EIR.		**Same** – Significant cumulative impacts from Interstate 215 will still occur.	
Utilities and Service Systems	Less than significant project impacts to water, wastewater, and stormwater facilities without implementation of mitigation measures. Less than significant project impacts on solid waste generation without implementation of mitigation measures.	**Better**– No further development results in a smaller increase in water, wastewater, and solid waste generation and reduces impacts to those facilities. **Worse**– The lack of regional drainage infrastructure will increase flooding in both major and minor storm events and will not result in increases in impacts to stormwater drainage facilities.	**Same** – Will generate a similar amount of water, wastewater, stormwater, and solid waste and impacts on those facilities would not be significant.	**Same** – Will generate a similar amount of water, wastewater, stormwater, and solid waste and impacts on those facilities would not be significant.
Environmentally Superior to Proposed Project?	**N/A**	**Yes**	**No**	**Yes**
Meets Most of the Project Objectives?	**Yes**	**No**	**Yes**	**Yes**

Environmentally Superior Alternative

The State *CEQA Guidelines*, Section 15126.6(e)(2), requires the identification of the environmentally superior alternative. Of the alternatives evaluated above, the No Project (Existing Land Use) alternative is the environmentally superior alternative with respect to reducing impacts created by the proposed project. The State *CEQA Guidelines* also require the identification of another environmentally superior alternative if the No Project alternative is selected as the environmentally superior alternative.

Of the remaining alternatives, the Reduced Commercial Alternative (Alternative 3) is the most environmentally superior alternative to the proposed project. This alternative would reduce the commercial land uses by 66 percent and increase business park and light industrial uses. When compared

to the proposed project, implementation of this alternative would result in a 12 percent reduction of project-generated traffic. The reduced traffic would result in slightly reduced air quality and noise impacts. However, air quality and noise impacts will not be sufficiently reduced to eliminate significant impact findings. Impacts related to agricultural, biological, cultural, geology, hazards, hydrology, land use, noise, and utilities would essentially stay the same as the proposed project.

While the City of Perris has examined a reasonable range of alternatives to the proposed project, one of which both meets some of the project objectives and is environmentally superior to the proposed project. The outcomes offered by Alternative 3 are limited when compared to the proposed project, to the extent that:

- The proposed alternative will not optimize the economic potential of the undeveloped parcels within the PVCC.
- The alternative will not create as diverse an array of new employment opportunities to utilize the skilled labor pool within the City of Perris as compared to the proposed project.
- The proposed alternative will not improve the economic development potential of the City of Perris by reducing the potential sales tax revenue generated by development within the project site.

This alternative would not result in maximum utilization of the land use as compared to the proposed project. Therefore, although Alternative 3 is an environmentally superior alternative, it is not feasible for the economic, social, technological, and other factors identified above and thus is not being further considered for development in lieu of the proposed project.

2.0 Introduction

This Draft Environmental Impact Report (DEIR) assesses the potential environmental effects of the Perris Valley Commerce Center Specific Plan (project), which is proposed by the City of Perris for the northwestern area of the City. The proposed project would be located within Planning Areas 1 and 3, and partially within Planning Areas 4 and 5 of the Perris General Plan. The Specific Plan is intended to contribute to the planned economic development of the City of Perris by creating jobs, increasing disposable income in the area, generating tax revenue, and stimulating other economic growth in and around the City.

The City of Perris is the Lead Agency under CEQA for this project pursuant to Sections 15051 and 15367 of the State *CEQA Guidelines*, and will use this document to objectively review and assess the proposed project prior to approving or disapproving the project. As discussed further in the "Compliance with CEQA" section of this section, this DEIR is tiered from *City of Perris General Plan 2030 Environmental Impact Report*, which is hereby incorporated herein by reference.

Background

The March Air Force Base was converted to the March Air Reserve Base (MARB) in 1996 to reflect its change in military function. Large portions of the base were no longer needed for exclusive military purposes and some of this surplus land was sold to commercial and industrial ventures. However, most of the land was acquired by the March Joint Powers Authority (MJPA) to be developed for civilian purposes. The MJPA is comprised of four land use jurisdictions surrounding the MARB: the County of Riverside and the cities of Riverside, Moreno Valley, and Perris. The MJPA has full land use and redevelopment authority and since realignment, the area surrounding the base under MJPA control has been in transition. The quick pace of development of the area has increased the desire to efficiently manage and coordinate the changing community. To facilitate this change, the City of Perris has designated more than five square miles and over 3,500 acres of the northwestern portion of the City to be developed under the guidance of a Master Development Plan known as the Perris Valley Commerce Center Specific Plan (PVCC).

The PVCC is primarily designated for Light Industrial land use, but also contains Commercial, General Industrial, Business/Professional Office and Public land use designations. The Specific Plan also includes areas with a residential designation to recognize existing communities. The PVCC is designed to promote compatibility of existing residential land uses with their neighboring industrial, commercial, and office uses.

The PVCC also intends to provide for high quality industrial, commercial, and office land uses to serve the existing and future residents and businesses of the City of Perris. It is anticipated that the Specific Plan will gain recognition throughout the region for its aesthetic cohesiveness, superior land planning, and architectural design.

The intentions of CEQA are to: (1) inform governmental decision-makers and the public about the potentially significant environmental effects of proposed activities; (2) identify the ways that environmental damage can be avoided or significantly reduced; (3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and (4) disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose, if significant environmental effects are involved (State *CEQA Guidelines*, Section 15002).

Purpose and Scope

The purpose of this DEIR is to evaluate potential environmental impacts at a programmatic level resulting from the implementation of the Perris Valley Commerce Center Specific Plan project which includes approval of Specific Plan 08-10-0007, Zone Change 08-10-0009, and General Plan Amendment 08-10-0008, which are sponsored by the City of Perris.

The City of Perris is the Lead Agency under CEQA and is responsible for the preparation of this DEIR. This DEIR is an informational document intended for use by the City of Perris, decision-makers, and members of the general public in evaluating the potential environmental effects associated with the proposed project, including General Plan land use designations and infrastructure plans. This study has been prepared pursuant to the State *CEQA Guidelines*, and the rules, regulations, and procedures for implementing CEQA as adopted by the City.

Compliance with CEQA

Format

Section 1.0 of this document covers the summary requirements of CEQA as required by Section 15123 of the State *CEQA Guidelines*. Section 2.0 introduces the document, provides background regarding the project, and discusses the DEIR's compliance with CEQA. Section 3 satisfies the project description requirements of CEQA by discussing the project location, the project objectives, a general description of the project's environmental setting, and a statement of document purpose and intended use.

Issues identified in the Initial Study prepared by the City of Perris for the proposed project are discussed in Sections 4.0, 5.0, and 6.0 of this document, which has been formatted to address the following general topics: Environmental Impact Analysis, Mandatory CEQA Topics, and Alternatives. Under each issue, an analysis is performed to determine the amount and degree of impact that is associated with the project. For all significant environmental impacts, mitigation measures, where feasible, are implemented in order to reduce the impact to a level below significant or to the maximum extent feasible.

The analysis of impacts and identification of mitigation measures is derived from technical reports which are included as technical appendices to this DEIR and from other informational resources as listed in Section 7.0, References.

Environmental Procedures

The EIR process typically consists of three parts – the Notice of Preparation (including the Initial Study), Draft EIR, and Final EIR. Pursuant to Section 15063 of the State *CEQA Guidelines*, the City of Perris prepared an Initial Study (Environmental Assessment) for the project in order to determine if the project may have a significant effect on the environment. Based upon the findings of fact contained within the Initial Study, the City concluded that an EIR should be prepared. A Notice of Preparation (NOP) for an EIR and a description of potential adverse impacts were distributed to the State Clearinghouse, responsible agencies, and other interested parties on or about August 26, 2009. A notice advising of the availability of the NOP was posted by the Riverside County Clerk on August 26, 2009. Pursuant to Section 15082 of the State *CEQA Guidelines*, recipients of the NOP were requested to provide responses within 30 days after their receipt of the NOP. Copies of the NOP (including the Initial Study) and the NOP distribution list are located in Appendix A to this DEIR. Copies of comments regarding the NOP, received by the City, are also included in Appendix A. A scoping meeting was held on September 16, 2009 before the Perris Planning Commission pursuant to the requirements of Section 15082(c)(1) of the State *CEQA Guidelines*.

As the "Lead Agency" for the purposes of CEQA compliance, the City of Perris has the principal responsibility for processing and approving the project. As set forth in Section 15021 of the State *CEQA Guidelines*, as "Lead Agency", the City of Perris also has the duty to avoid or minimize environmental damage where feasible. Furthermore, Section 15021(d) states that, "CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian." Other public agencies (i.e., Responsible and Trustee Agencies) that may use this EIR in their decision-making or permit processing, will consider the information in this EIR along with other information that may be presented during the CEQA process. In accordance with CEQA, the public agencies will be required to make findings for each environmental impact of the project that cannot be mitigated to below a level of significance. If the Lead Agency determines the benefits of the proposed project outweigh unavoidable significant environmental effects, the agency will be required to adopt a Statement of Overriding Considerations stating the reasons supporting their action notwithstanding the project's significant environmental effects.

Description of a Tiered Environmental Impact Report

The *City of Perris General Plan 2030 Environmental Impact Report* (Perris GP EIR) was certified on April 26, 2005. The Perris GP EIR analyzed the potential impacts associated with implementation of the Perris General Plan 2030 (Perris GP). Based upon the Initial Study prepared for the project, the City determined that an EIR should be prepared to analyze the potential impacts associated with approval and implementation of the Perris Valley Commerce Center Specific Plan.

Pursuant to Sections 15152 and 15385 of the State *CEQA Guidelines*, "tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan, or specifically for this project, the Perris GP EIR) with later EIRs on narrower projects (i.e., PVCC); incorporating by reference the general discussions from the broader EIR; and concentrating the latter EIR solely on the issues specific to the later project.

Section 15152(b) of the State *CEQA Guidelines* states that, "Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program EIR to an EIR or negative declaration for another plan, policy, or program of lesser scope or to a site-specific EIR or negative declaration."

The proposed PVCC would slightly modify existing General Plan land use designations and set forth a list of permitted uses, guidelines for landscape and architectural design, infrastructure plans, and administrative procedures. Therefore, the Perris GP EIR represents a "broader EIR" which analyzed the general matters associated with development within the City of Perris, including the PVCC project area, pursuant to the Perris GP. The proposed PVCC represents a development plan of lesser scope than the Perris GP and provides more site-specific detail regarding future development within the project area. For this reason, the analysis contained in this DEIR is being tiered from the Perris GP EIR.

Breadth of Environmental Analysis

Pursuant to the provisions of Section 15152 of the State *CEQA Guidelines*, the environmental analysis contained within this DEIR shall consist of effects which "were not examined as significant effects on the environment in the Perris GP EIR; or which are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." As

appropriate, the general discussions contained within the Perris GP EIR will be incorporated by reference and summarized within this DEIR. (State *CEQA Guidelines*, Sections 15150 and 15152)

Effects Found Not to be Significant during Preparation of the NOP

CEQA provides that an EIR shall focus on the significant effects on the environment, discussing the effects with emphasis in proportion to their severity and probability of occurrence. Effects dismissed in an initial study as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless information inconsistent with the finding in the initial study is subsequently received.

Section 21100(c) of the Public Resources Code states that an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Section 15128 of the State *CEQA Guidelines* adds, "Such a statement may be contained in an attached copy of an Initial Study."

The Initial Study prepared and circulated for public review regarding the Perris Valley Commerce Center Specific Plan (Appendix A) concluded that the proposed development would not result in significant impacts to the following: Aesthetics, Mineral Resources, Public Services, and Recreation. These issue areas are not discussed further in this EIR. The basis for elimination of each relevant impact in these issue areas is documented in the appended Notice of Preparation document (Appendix A).

The NOP determined that several issue areas may have potentially significant effects on the environment, and therefore are discussed further in Section 4.0. Impacts related to the following issues were found to be potentially significant in the Initial Study: Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials (including Airports), Hydrology and Water Quality, Land Use/Planning, Noise, Population and Housing, Transportation/Traffic, and Utilities and Service Systems.

NOP Comment Letters

The public review period for the NOP/Initial Study began August 26, 2009 and ended September 16, 2009. The following is a list of all those entities for which comments on the NOP/Initial Study were received and a brief summary of the issues raised. None of the comments received had the effect of changing the issue areas to be discussed in the DEIR. These letters can be found in Appendix A.

1. **Department of the Air Force** 9/17/09 – The Department of the Air Force had concerns regarding noise, airport and biological resources. The Air Force recommended protection of noise contours which was addressed in Section 4.9 Noise. The Air Force had comments regarding Accident Potential Zones and land use compatibility, and building requirements and safety concerns while constructing near airports, which was addressed in Section 4.6 Hazards and Hazardous Materials.
2. **Riverside County Airport Land Use Commission** 9/24/09 – The Airport Land Use Commission requested review of the project and provided comments. The project went to the Commission on March 11, 2010, at which time the Commission found the PVCC Specific Plan to be consistent with the Countywide Policies of the 2004 Riverside County Airport Land Use Compatibility Plan, subject to certain conditions. Airport Impacts are addressed in Section 4.6 Hazards and Hazardous Materials.
3. **California Department of Fish and Game (CDFG)** 9/24/09 – When development begins, a Lake or Streambed Alteration Agreement or California Endangered Species Incidental Take Permit will be required, and the CDFG expressed concerns regarding impacts to biological species including Burrowing Owls, sensitive floral and fauna resources, and provided a list of information that

should be included in any focused biological report. This information is addressed in Section 4.3 Biological Resources.

4. **California Regional Water Quality Control Board** 9/28/09 – The Board questions whether the project would require Section 404 permits, and if development would occur within the Perris Valley Storm Drain Channel. The Board also wanted the project to show implementation of TMDLs adopted by the regional board. These issues were addressed in Section 4.7 Hydrology and Water Quality.
5. **State of California Department of Transportation (Caltrans)** 9/29/09 – Caltrans is concerned with impacts to existing facilities due to the project being immediately located adjacent to the State ROW (Interstate-215), and requested a traffic impact analysis for the project.
6. **State of California Department of Transportation – Division of Aeronautics** 9/21/09 – The letter addresses concerns with respect to airport related noise, safety, and regional land use and planning uses within the proximity of the project to the airport. These issues were addressed in Section 4.6 Hazards and Hazardous Materials.
7. **Chuck Sisler** 9/16/09 – The commenter is concerned about what the Specific Plan would do to the future land uses and if those land uses would affect the potential of obtaining a business license. Issues regarding Land Uses are discussed in Section 4.8, however business license issues do not impact the environment, and a response was provided to the commenter from the Lead Agency.
8. **City of Moreno Valley Department of Public Works** 9/24/09 – The City of Moreno Valley requested that a traffic study be part of the EIR and include analysis of Heacock Street, Indian Street and Perris Boulevard. Traffic impacts are discussed in Section 4.10 Traffic and Transportation.
9. **City of Riverside Community Development Department** 9/25/09 – The City requested that the EIR analyze the projects impacts to MARB, which are discussed in Section 4.6 Hazards and Hazardous Materials.
10. **State of California Department of Conservation** 9/21/09 – The letter is not project specific but refers to map references to assist in writing agricultural resources sections. Agricultural Resources are discussed in Section 4.1.
11. **State of California Department of Conservation** 9/24/09 – The department comments on the location and extent of farmland within the project site, and current and past agricultural uses onsite, and provides recommended mitigation measures. Agricultural Resources are discussed in Section 4.1.
12. **State of California Department of Water Resources** 9/22/09 – The department commented on the project's proximity to Perris Dam, and stated that the project is within the inundation area downstream of Perris Dam, and may be subject to potential flooding. Flooding hazards are discussed within Section 4.7 Hydrology and Water Quality.
13. **Kay Follett** 9/17/09 – The commenter is concerned about how land use changes would affect property values. Issues regarding Land Uses are discussed in Section 4.8, however specific concerns regarding property values do not contribute to environmental impacts, and a response was provided to the commenter from the Lead Agency.
14. **March Joint Powers Authority** 9/25/09 – The letter requested that the EIR identify existing policies of the Riverside County Airport Land Use Commission to convey avigation easements for areas within the 1986 Airport Influence Areas. Airport impacts were analyzed in Section 4.6 Hazards and Hazardous Materials of the EIR. The letter also requests analysis of Western Way. Traffic Impacts are analyzed in Section 4.10 Traffic and Transportation.

15. **Native American Heritage Commission (NAHC)** 8/28/09 – The NAHC recommends early consultation with the Native American tribes and mitigation measures. Native American consultation and the recommended mitigation measures are addressed in Section 4.4 Cultural Resources.
16. **Office of Planning and Research (OPR)** 8/26/09 – This letter contains standard comments from the State that are not specifically related to the project.
17. **Pechanga Cultural Resources** 9/21/09 – The tribe asked for involvement and consultation in the environmental review through the SB 18 process and recommended mitigation measures. Tribal concerns, including SB 18 consultation, are addressed in Section 4.4 Cultural Resources.
18. **County of Riverside Fire Department** 9/23/09 – The department has concerns regarding cumulative impacts from the project and from construction, including building materials, per the California Building Code. Impacts to public utilities were considered less than significant in the initial study. All development projects in the future will be required to pay Development Impact Fees as part of construction, as addressed in Appendix A.
19. **Riverside County Flood Control and Water Conservation District** 9/29/09 – The district acknowledged that the project impacts the Perris Valley Storm Drain alternative, and therefore all interim development projects shall respect the physical constraints by each alternative of the project and shall include a condition of approval stating that each developer shall execute an agreement with RCFC to pay its "fair share" of the total river project improvements. These hydrology issues are addressed in Section 4.7 Hydrology and Water Quality.
20. **Riverside County Planning Department** 9/30/09 – The Planning Department requested an extension of time to review the project and comment during the public review period.
21. **Riverside County Planning Department** 10/1/09 – The department has recommended mitigation measures and requested GHG analysis as part of the environmental document. The department also had questions regarding agricultural lands within the project site. Agricultural land are discussed in Section 4.1 Agricultural Resources, and the GHG analysis and recommended mitigation measures are discussed in Section 4.2 Air Quality.
22. **Riverside Transit Authority (RTA)** 9/21/09 – RTA requested that the project adequate address effects on transit service. The projects impacts on transit service are discussed in Section 4.10 Traffic and Transportation.
23. **Southern California Association of Governments (SCAG)** 9/17/09 – SCAG requested a discussion of the project's consistency with SCAG's policies, and analysis of their regional projections to the project. Analysis of the policies is discussed in Section 4.8 Land Use and Planning.
24. **South Coast Air Quality Management District (SCAQMD)** 8/31/09 – The letter requests that air quality analysis shall be in accordance with all SCAQMD methodology. The air analysis is discussed in Section 4.2 Air Quality.
25. **Soboba Band of Luiseno Indians** 9/3/09 – The tribe requested government to government consultation in accordance with SB 18, and requests monitors during grading. The tribe's comments and concerns are addressed in Section 4.4 Cultural Resources.
26. **The California Department of Toxic Substance Control (DTSC)** 9/15/09 – The department requested that the EIR identify current or historic uses that may result in the release of hazardous materials onsite, and to identify mechanisms to initiate any required investigation and/or

remediation of any contaminated site. Hazardous materials are discussed in Section 4.6 Hazards and Hazardous Materials.

27. **Val Verde Unified School District** 8/27/09 – The school district is concerned with the health, safety and welfare of the students within the district, and wants to be contacted with any potential traffic flow changes that might affect the welfare of the students. The concerns of this letter are addressed in Section 4.6 Hazards and Hazardous Materials, and 4.10 Traffic and Transportation.

Effects Found Not to be Significant as Part of the EIR Process

Based on the analysis contained in this document, the following issue areas have less than significant adverse environmental effects without requiring mitigation measures: Agriculture, Hydrology and Water Quality, Land Use and Planning, Noise, Utilities and Service Systems. The following issue areas have potential environmental effects that can be mitigated to below the level of significance: Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, and Transportation and Traffic.

Potentially Significant Environmental Effects

Sections 15126, 15126.2 and 15126.4 of the State *CEQA Guidelines* require consideration and discussion of significant environmental effects and mitigation measures proposed to minimize significant effects. All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation (Section 15126) and an EIR shall identify and focus on the significant environmental effects of the proposed project (Section 15126.2).

Section 4.0 of this EIR addresses each environmental effect that was determined to be potentially significant during preparation of the NOP prepared for this project and mitigation measures proposed to minimize significant effects.

Potential project-specific and cumulative impacts upon Air Quality and Noise and cumulative impacts related to traffic on Interstate 215 were found to be unavoidably significant and cannot be mitigated to below the level of significance. A Statement of Overriding Consideration will be required for these issue areas.

Please see the following referenced sections of this DEIR for more detailed discussion of each issue area:

- Agricultural (Section 4.1)
- Air Quality (Section 4.2)
- Biological Resources (Section 4.3)
- Cultural Resources (Section 4.4)
- Geology and Soils (Section 4.5)
- Hazards and Hazardous Materials (Section 4.6)
- Hydrology and Water Quality (Section 4.7)
- Land Use and Planning (Section 4.8)
- Noise (Section 4.9)
- Transportation and Traffic (Section 4.10)
- Utilities and Service Systems (Section 4.11)

Uses of this EIR

As the Lead Agency, the City of Perris has assumed responsibility for preparing this document. The decision to implement the project is within the purview of the Perris City Council. The City Council will use the information included in this EIR to consider potential impacts to the physical environment associated with the project when making its decision regarding the project.

The DEIR will be made available for review to the public and public agencies for 45 days to allow for the preparation of comments regarding the "sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (Section 15204 of the State *CEQA Guidelines*).

The City will use the EIR and supporting documentation for implementation of the proposed project through the approval of land use proposals including, but not limited to, Zone Changes, Development Plan Reviews and Agricultural Preserve Diminishments. As this is a programmatic EIR, preparation of a later-tier environmental document would be required for specific development projects within the PVCC when such projects are proposed. This later-tier environmental document could be any of the following: Negative Declaration, Mitigated Negative Declaration, Supplemental EIR, or Subsequent EIR. Regulatory agencies will use the EIR and supporting documentation in its decision to issue permits related to development of the subject property.

3.0 Project Description

Project Location

The proposed Perris Valley Commerce Center Specific Plan (PVCC) project site is located on approximately 3,500 gross acres within the City of Perris, in Riverside County, California (**Figure 3.0-1, Regional Map**). The project site is located east of Interstate 215, west of the Perris Valley Storm Channel (PVSC), south of March Air Reserve Base (MARB), and north of Placentia Street. The surrounding area includes the City of Moreno Valley and MARB to the north, the unincorporated community of Mead Valley to the west, and more developed areas of the City of Perris to the south and east. (**Figure 3.0-2, Aerial Photograph**)

Site Description

The land uses within the PVCC area are in transition from an undeveloped agricultural area to a commerce center providing for the needs of an ever-expanding regional market. The area offers access to a multi-directional freeway system via Interstate 215 traveling north and south, and State Route 60 traveling east and west as shown on **Figure 3.0-1**. In addition, the Mid County Parkway, a 16 mile east-west transportation corridor, is proposed from San Jacinto to Interstate 215 in Perris.

At this time, a large portion of the PVCC project area is undeveloped land currently in agricultural use. Other portions contain existing development that includes warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community and a mobile home park.

Surrounding land uses, as shown in **Table 3.0-A, Existing (2009) Land Uses**, include the following:

North: Vacant land, MARB and industrial uses within Moreno Valley jurisdiction
South: Industrial, residential and vacant land
East: Perris Valley Storm Channel, residential and vacant land
West: Vacant property, industrial uses, Interstate-215 and an existing rail line within Riverside County jurisdiction

Table 3.0-A, Existing (2009) Land Uses

Existing Land Use	Total Acreage
Agriculture	527.4
Commercial	121.7
Commercial-Parking	108.4
General Office	14.3
General Industrial	276.4
Warehouse/Distribution	224.9
Val Verde High School	17.6
Single-Family Residential	261.4
Mobile home Parks	24.9
Vacant	1,687.5
Other (ROW, etc.)	319.5
TOTAL	**3,584.0**

The terrain within the project site is relatively level. Elevations range from 1,435 feet above mean sea level (MSL) at the southeastern corner near the PVSC to 1,522 feet MSL at the northwestern corner near March Air Reserve Base, an 87-foot difference in elevation over a distance of 3.5 miles.

The PVCC project area is primarily designated for Light Industrial (LI) land use by the Perris General Plan, but the project area also contains Business Park (BP), Community Commercial (CC), General Industrial (GI), Neighborhood Commercial (NC), Open Space (OS), Other (ROW, water quality basins, etc.), Professional Office (PO), Residential (Multi-Family MFR-14, Single-Family R-6,000 and R-20,000), Specific Plan (SP) and Public/Semi-Public (P) land use designations. (See **Figure 3.0-3, Existing Land Designations** and **Table 3.0-B, Proposed Land Use Designation Changes**.)

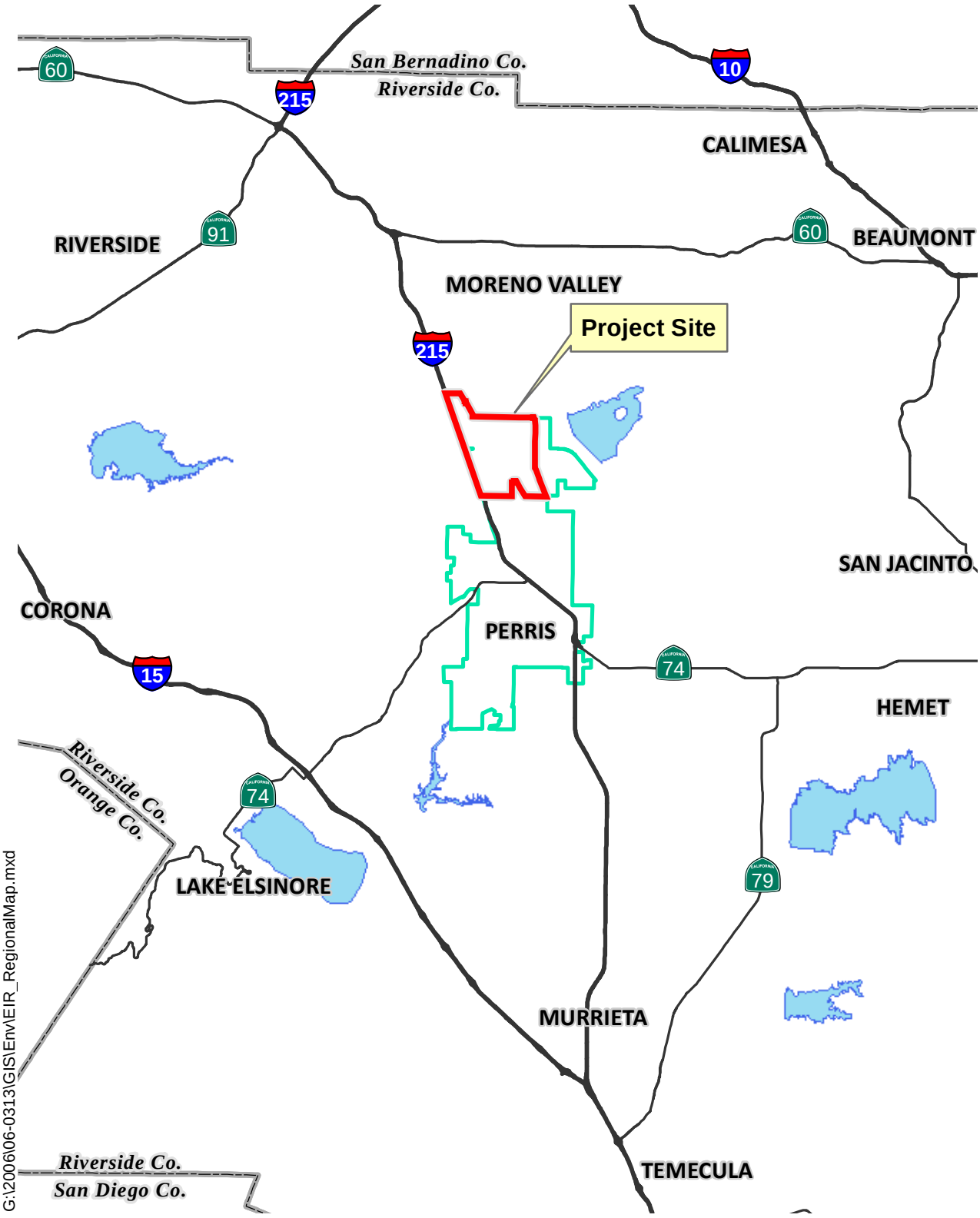
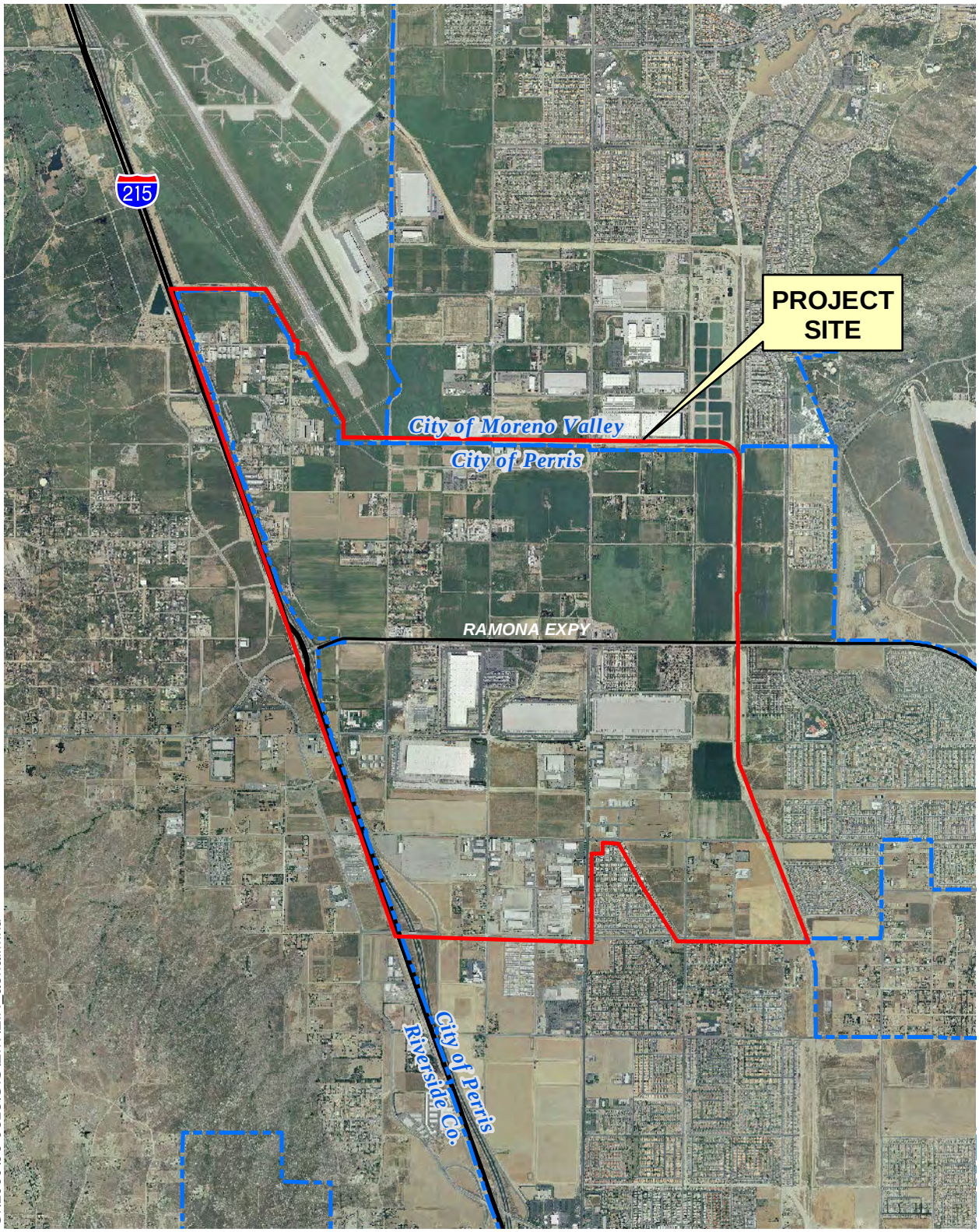


Figure 3.0-1
Regional Map



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Imagery: Eagle Aerial, April 2010

Figure 3.0-2
Aerial Photograph

0 1 2 Miles

Project Description

Immediately north of the City of Perris is the MARB. After conversion of the March Air Force Base to an Air Reserve Base in 1996, surplus lands were sold to commercial and industrial ventures, and the balance of lands not required for military purposes acquired by the March Joint Powers Authority. Since then, the entire area surrounding the base has been in transition. The quick pace of development of these areas has increased the desire to efficiently manage and coordinate the changing community. To facilitate this change, the City of Perris has designated more than five square miles and over 3,500 acres in the northwestern portion of the City to be developed under the guidance of a master development plan known as the PVCC Specific Plan. This plan will include revised General Plan land use designations and infrastructure plans to support new development within this area.

The proposed project includes the adoption of the PVCC and related infrastructure plans. The project area covers approximately 5.23 square miles of the northern part of the City of Perris. The PVCC would slightly modify existing General Plan land use designations (See **Figure 3.0-3, Existing General Plan Land Designations**), and sets forth a list of permitted uses, guidelines for landscape and architectural design, infrastructure plans, and administrative procedures. (See **Figure 3.0-4, Proposed Land Use Plan**).

The PVCC site is located within Planning Areas 1 and 3, and partially within Planning Areas 4 and 5 of the General Plan. Generally, the proposed PVCC land use designations correspond with the current Perris General Plan (Perris GP) land use designations with the following exceptions: the Community Commercial (CC) and Neighborhood Commercial (NC) have been combined into one designation – Commercial (C). Business Park (BP) and Professional Office (PO) have been combined to form one designation – Business/Professional Office (BPO). Public/Semi-Public/Utilities (P) and Park, Recreational, and Natural Open Space (OS) have been combined to become Public (P). **Table 3.0-B** below, shows the proposed changes in the project area's land use designations for the PVCC.

Table 3.0-B, Proposed Land Use Designation Changes

Land Use Designations	Current Perris GP Acreage	PVCC Proposed Acreage
Business Park (BP)	286.87	0.00
Business Park/Professional Office (BPO)	0.00	357.12
Commercial (C)	0.00	309.22
Community Commercial (CC)	456.47	0.00
General Industrial (GI)	422.90	407.95
Light Industrial (LI)	1,620.08	1,836.28
Neighborhood Commercial (NC)	5.85	0.00
Open Space (OS)	30.73	0.00
Other (ROW, water quality basins, etc)	329.24	339.47
Professional Office (PO)	30.13	0.00
Public/Semi-Public Facility (P)	89.36	248.71
Residential (Multi-Family) (MFR-14)	0.00	22.33

Land Use Designations	Current Perris GP Acreage	PVCC Proposed Acreage
Residential (Single-Family) (R-6,000)	59.12	0.00
Residential (Single-Family) (R-20,000)	62.88	62.88
Specific Plan (SP)	190.33	0.00
Total Acres	**3,583.96**	**3,583.96**

Perris Valley Master Drainage Plan

The infrastructure plans proposed as part of the project include analysis of storm drains, stormwater quality, and water and sewer facilities.

As part of the infrastructure plans, an updated Perris Valley Master Drainage Plan (PVMDP) will be needed in order to meet the development goals of the PVCC. The drainage systems that will be developed in conjunction with the PVCC will consist of two basic components: storm drains and detention basins. The drainage system will capture surface run-off from properties in the area and convey it into proposed storm drains and detention basins before continuing to the PVSC. The Master Plan basins are designed to dewater within 48 hours to 72 hours after rainfall events. The modifications to the existing PVMDP are described below:

- **Line D (From the Perris Valley Storm Channel to the upstream end of the facility, approximately 2,000 feet west of Indian Avenue on Nance Street).** Line D will consist of a concrete lined trapezoidal channel, an underground reinforced concrete box and an underground reinforced concrete pipe. While the proposed slope of the underground portions of this facility are less than the Riverside County Flood Control and Water Conservation District (RCFC&WCD) design standards, an agreement has been reached with RCFC&WCD to ensure this will be a District maintained facility.
- **Line E (From the Perris Valley Storm Channel to the proposed Line E Detention Basin).** Line E will consist of a concrete lined trapezoidal channel, an underground reinforced concrete box, and an underground reinforced concrete pipe. While the proposed slope of a segment of this facility is less than the RCFC&WCD design standards, an agreement has been reached with RCFC&WCD to ensure this will be a District maintained facility.
- **Line E Detention Basin.** This basin or basins will be located in the vicinity of the intersection of the Ramona Expressway and Interstate-215. The Line E Detention Basin(s) is a key component to the proposed Line E system. The basin(s) will reduce peak flows and allow the majority of the downstream facility to be constructed in the street right-of-way. Line E Detention Basin(s) conceptually requires a surface area of approximately 9.5 acres with an approximate depth of 20 feet. The Line E Detention Basin(s) will be designed to handle a 100-year storm event. It is anticipated that the Line E Detention Basin(s) may serve as a dual use facility, both as a recreational park and a flood control basin.
- **Line F (From the Line E Detention Basin to the Line F Detention Basin).** Line F will consist of an underground reinforced concrete pipe from the Line E Detention Basin to the Line F Detention Basin. The slope proposed for Line F meets the minimum RCFC&WCD design criteria, and as such would be a District maintained facility.
- **Line F Detention Basin.** This basin will be located in the vicinity of the intersection of Markham Street and the Interstate-215. Line F Detention Basin will reduce peak flows and allow a majority of the downstream facilities to be constructed within the street right-of-way. Line F Detention

Basin conceptually requires a surface area of approximately 8 acres with an approximate depth of 20 feet. The Line F Detention Basin will be designed to handle a 100-year storm event. It is anticipated that the Line F Detention Basin may serve as a dual use facility, both as a recreational park and flood control basin.

- **Line H from the Perris Valley Storm Channel to the proposed Line H Detention Basin.** Line H is proposed as an underground reinforced concrete box in Placentia Avenue, from the PVSC to the Line H Detention Basin. The slope proposed for Line H meets the minimum RCFC&WCD design criteria, and as such would be a District maintained facility.
- **Line H Detention Basin.** This basin will be located in an area approximately 1,000 feet west of Indian Avenue and south of Walnut Street. The Line H Detention Basin will have a surface area of approximately 15.5 acres and will be approximately 20 feet deep. The basin will reduce peak flows and allow the downstream Line H facility to be constructed within the street right-of-way. The Line H Basin will be designed with a holding capacity to accommodate the 100-year storm event. It is anticipated that the Line H Detention Basin will also serve as a dual use facility, both as a recreational park and a flood control basin.

In addition to the modified facilities discussed above, other adopted Perris Valley MDP facilities in the PVCC area will also need to be constructed to accommodate the drainage needs of the area. These facilities will be required to accommodate developed 100-year storm flows in the project area. It is anticipated that the above-described drainage systems will be constructed in conjunction with future development projects within the PVCC area. Once developed, run-off from the project area will be increased. This increased run-off is consistent with the existing PVMDP. Run-off will be discharged into the PVSC and ultimately into the San Jacinto River.

Land Use Applications

The proposed project includes the following land use applications: Specific Plan No. 08-10-0007; General Plan Amendment No. 08-10-0008; and Change of Zone No. 08-10-0009.

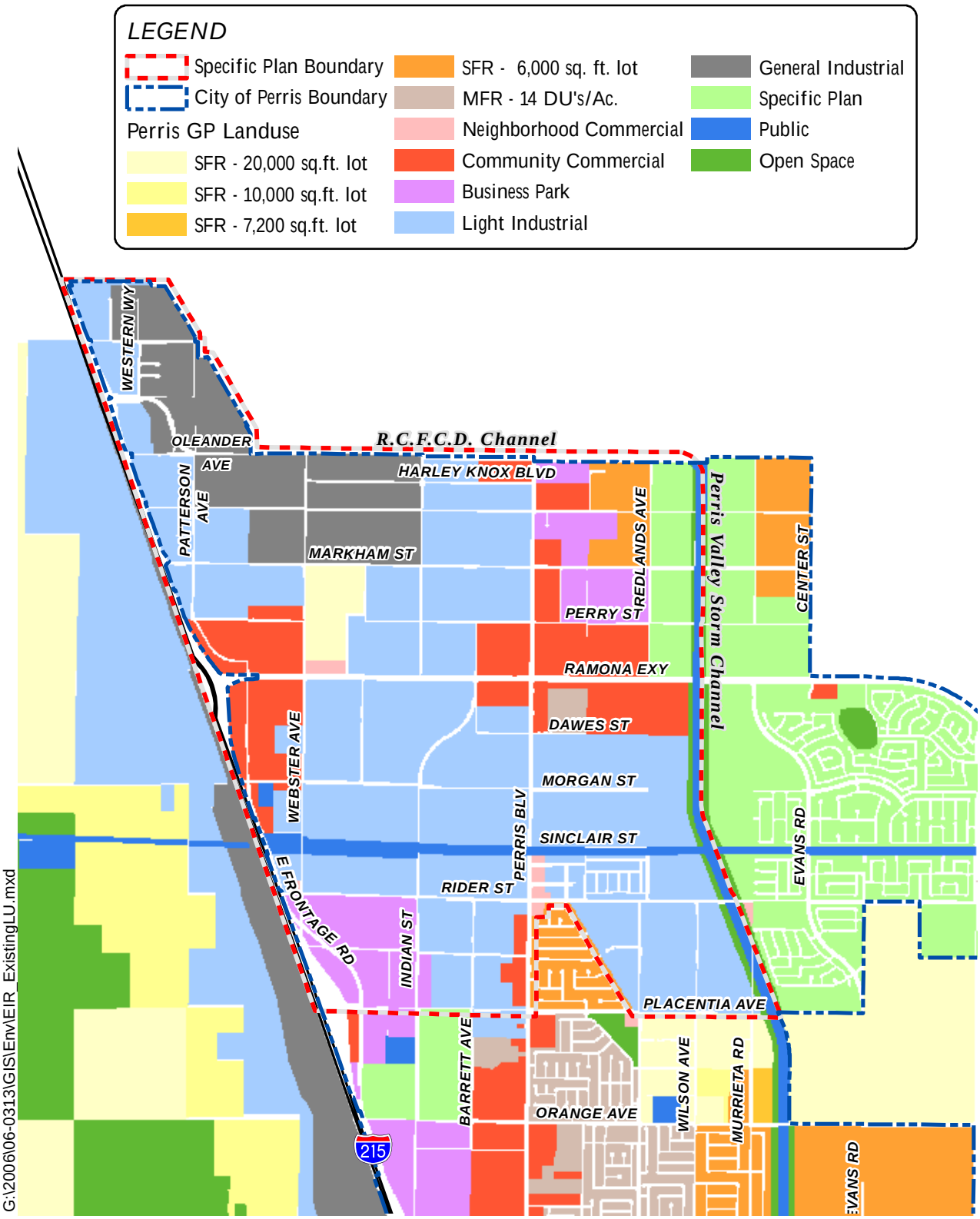
- **Specific Plan No. 08-10-0007** includes a land use plan, designation of planning areas, development standards, and design and landscaping guidelines associated with the development of the Perris Valley Commerce Center Specific Plan.
- **General Plan Amendment No. 08-10-0008** proposes to amend the Land Use Element of the Perris General Plan to designate the properties within the project area as Specific Plan.
- **Change of Zone 08-10-0009** proposes to change the designated zoning of the properties within the project area to Specific Plan (SP).

The proposed project will be analyzed with a "programmatic" approach. The project promotes changes in land use designations from the Perris GP and the establishment of infrastructure plans to support development within the land use designations, but specific uses and projects are not known at this time. The PVCC will guide future development throughout the project area.

Future development within the PVCC may require utility services provided by these purveyors:

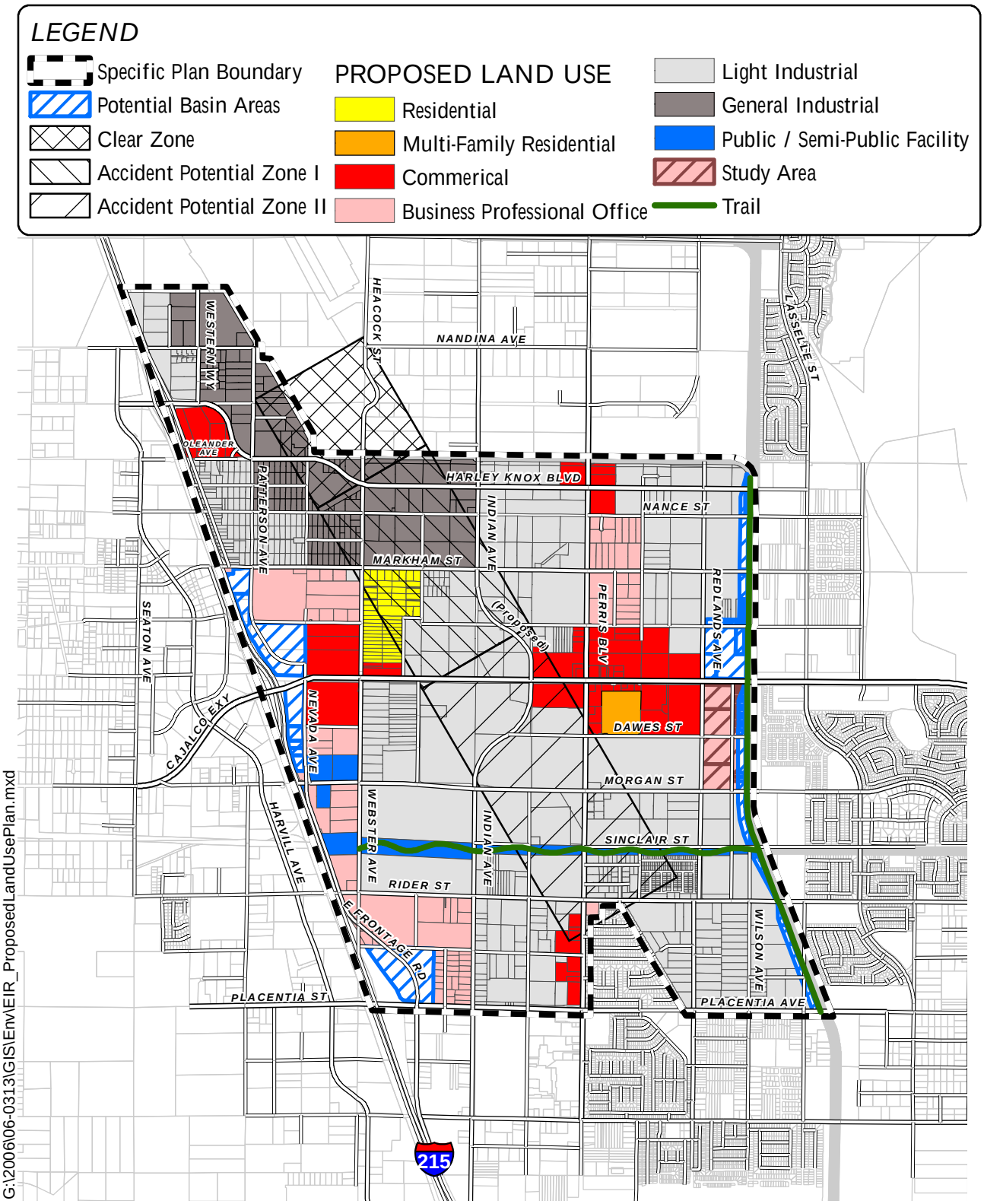
Purveyor	Type of Services
Eastern Municipal Water District (EMWD)	water, sewer, recycled water
Verizon	telephone
Southern California Edison (SCE)	electricity
Southern California Gas Company	natural gas
CR&R Waste Services	solid waste disposal

Time Warner Communications	cable television and internet



Source: City of Perris General Plan, adopted April 2005, as amended through Feb. 2009.

Figure 3.0-3
Existing Land Use Designations



Source: City of Perris General Plan, adopted April 2005, as amended through Feb. 2009.

Figure 3.0-4
Proposed Land Use Plan

Project Objectives

A clear statement of project objectives allows for the analysis of reasonable alternatives to the proposed project. A range of reasonable alternatives, both on and off site, that would feasibly attain most of the basic project objectives, while avoiding or substantially lessening the significant effects of the project, must be analyzed per State *CEQA Guidelines* Section 15126.6.

The intent of the PVCC is to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and businesses of the City of Perris. To achieve this, the City has developed the following objectives for the PVCC Specific Plan:

- Allow the residents of the community to live and work under the same roof.
- Promote future Professional Office conversions.
- Ensure a balance of land uses that maintain and enhance the City's fiscal viability, economic diversity and environmental integrity.
- Encourage the development of joint-use and dual-use facilities.
- Set forth allowed land uses in a coordinated, comprehensive manner that interfaces with planned open space trails and public realms, as well as proximity to transportation facilities.
- Promote land use compatibility with the continued military and civilian operations at March Air Reserve Base.

Discretionary Actions and Approvals

The DEIR serves as an informational document for use by public agencies, the general public, and decision makers. This DEIR discusses the impacts of development pursuant to the proposed project and related components and analyzes project alternatives. This DEIR will be used by the City of Perris and responsible agencies in assessing impacts of the proposed project.

The following public entities and/or agencies may use this DEIR when considering the project:

- **City of Perris Planning Commission**

  a) Recommendation to the Perris City Council for Certification of the Final Environmental Impact Report for the project.

  b) Recommendation to the Perris City Council regarding approval of Zone Change (ZC) 08-10-0009 to change the zoning of the properties within the project site to Specific Plan (SP).

  c) Recommendation to the Perris City Council regarding approval of Specific Plan (SP) 08-10-0007 to adopt Land Use Designations, plan for public facilities, adopt design guidelines and establish a development incentive program for approximately 3,500 gross acres.

  d) Recommendation to Perris City Council regarding approval of General Plan Amendment (GPA) 08-10-0008 to amend the Land Use Element of the Perris General Plan to designate the properties within the project area as Specific Plan.

- **City of Perris City Council**

  a) Certification of the Final Environmental Impact Report (FEIR).

  b) Approval of Zone Change 08-10-0009 to change the zoning of the properties within the project site to Specific Plan (SP).

  c) Approval of Specific Plan 08-10-0007 to adopt Land Use Designations, plan for public facilities, adopt design guidelines and establish a development incentive program on approximately 3,500 gross acres.

  d) Approval of General Plan Amendment 08-10-0008 to amend the Land Use Element of the Perris General Plan to designate the properties within the project area as a Specific Plan.

Other actions and permits may be needed to implement this project, including:

- **California Department of Transportation** (Caltrans)

  a) Issuance of encroachment permits related to street improvements within their rights-of-way.

- **Eastern Municipal Water District**

  a) Approval and construction of infrastructure (water and sewer) improvements.

- **Regional Water Quality Control Board**

  a) Issuance of a National Pollutant Discharge Elimination System (NPDES) Construction Permit (Order No. 99-08-DWQ).

- **Riverside County Airport Land Use Commission**

  a) Consistency Review

- **Riverside County Flood Control and Water Conservation District**

  a) Approval of hydrology/stormwater drainage system

  b) Approval of the Master Drainage Plan

  c) Provide the terms and conditions of design, construction, inspection, transfer of rights-of-way, project credit in lieu of charges and reimbursement schedule which may apply to Perris Valley Area Drainage Plan facilities constructed as part of this project.

4.1 Agriculture

The focus of the following analysis is related to potential impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflicts with existing zoning for agricultural use, or a Williamson Act contract; or other changes in the existing environment which could result in conversion of Farmland to non-agricultural use.

In response to the NOP, comment letters were received from the California Department of Conservation (DOC). The DOC requested that the EIR identify the location and extent of Prime Farmland, Farmland of Statewide Importance, Unique Farmland and other types of farmland in and adjacent to the project area, and that the EIR should also identify current and past agricultural use of the project area and include data on types of crops grown, crop yield, and farm gate sales values. These comments and concerns from this letter are incorporated into this section of the EIR.

In addition to other documents, the following references were used in the preparation of this section of the Draft EIR:

- City of Perris, *City of Perris General Plan 2030*, July 12, 2005. (Available at http://www.cityofperris.org/city-hall/general-plan/General_Plan_2030.pdf, accessed June 3, 2011.) (Perris GP EIR)
- Hogle-Ireland, Inc., *City of Perris General Plan 2030 Environmental Impact Report*, October 2004. (Available at the City of Perris and at www.cityofperris.org/city-hall/general-plan.html, accessed November 17, 2009.) (Perris GP EIR)
- Riverside County Agricultural C*ommissioner's Office, Riverside County 2008 Agricultural Production Report*. (Available at http://www.rivcoag.org/opencms/publications/ accessed April 14, 2010.)
- California Department of Conservation, *Farmland of Local Importance*. (Available at www.consrv.ca.gov/dlrp/fmmp/Documents/Local_definitions_00.pdf, accessed April 14, 2010.)
- California State Department of Conservation, Division of Land Resources Protection, Farmland Mapping and Monitoring Program, *Riverside County Important Farmland 2008, Sheet 1 of 3*. (Available at http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx, accessed April 14, 2010.)
- County of Riverside, *Riverside County Integrated Project General Plan*, Adopted October 7, 2003. (Available at http://www.rctlma.org/genplan/content/gp/chapter05.html, accessed June 3, 2011.)

Setting

The Perris Valley Commerce Center Specific Plan (PVCC) area and its surroundings are in transition from agricultural land uses to a mix of commerce, industrial, and business park uses. The project site comprises approximately 3,500 gross acres within the city of Perris. The site is located adjacent to the east side of Interstate-215 and the west side of the Perris Valley Storm Channel (PVSC), south of the March Air Reserve Base (MARB) and Riverside County Flood Control District Channel, and north of Placentia Avenue.

At this time, a large portion of the proposed PVCC area is undeveloped land currently used for agriculture. The other portions contain some existing developments including warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community, and a mobile home subdivision. The surrounding area includes the city of Moreno Valley and MARB to the north; the community of Mead Valley, an unincorporated area of Riverside County, to the west; and more developed areas of the city of Perris to the south and east.

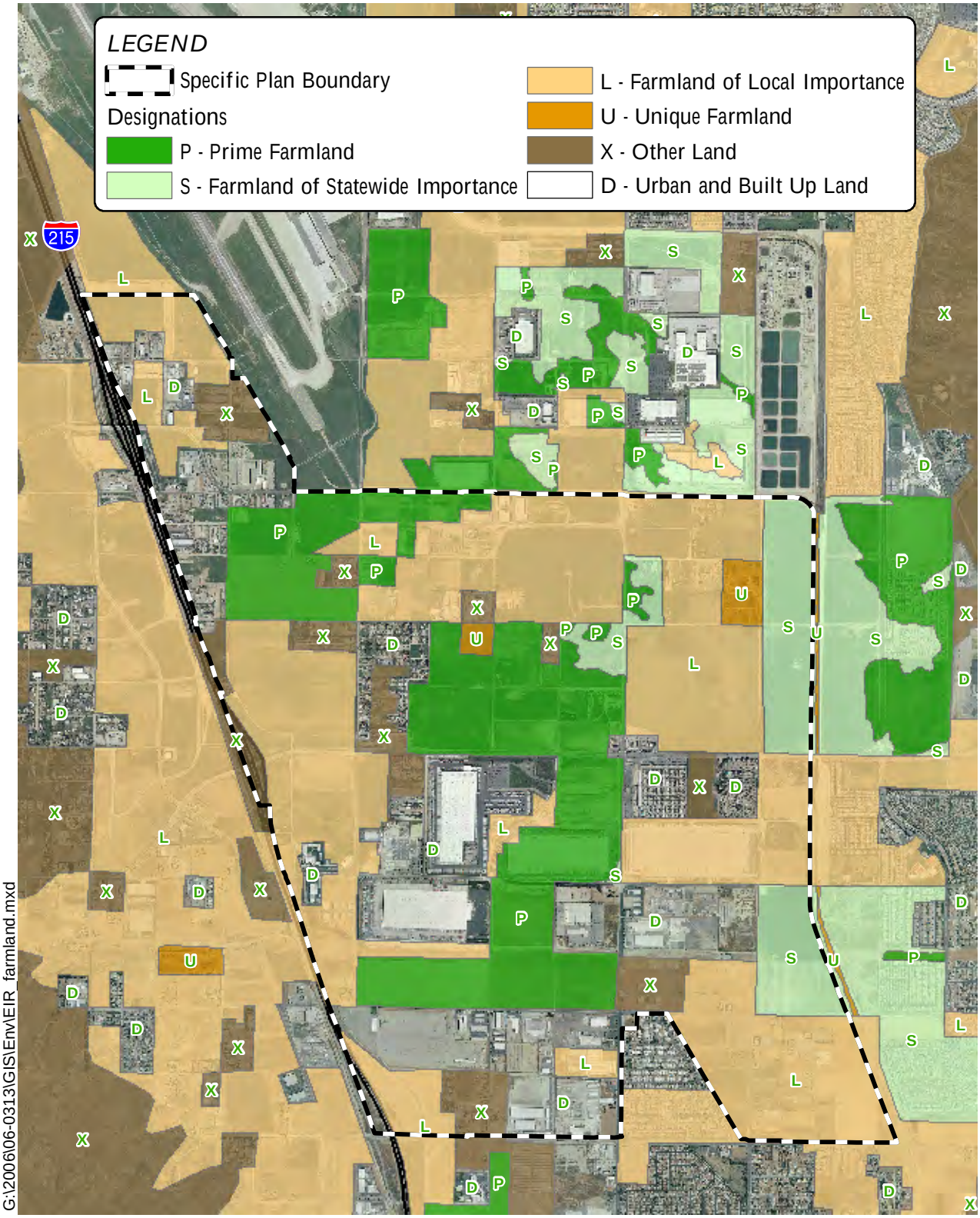
Agriculture has long been a major foundation of the economy and culture of Riverside County and remains a thriving part of the County of Riverside. However, in recent years, its role has been diminishing in the western portion of the County. While some agriculturally productive lands have been lost to other forms of development, other lands have been brought into agricultural production. As indicated in the Riverside County 2008 Agricultural Production Report, agricultural production represented a total gross valuation of $1.268 billion in 2008, which was a 0.3 percent increase from the 2007 gross value of $1.265 billion. Total planted acreage in Riverside County increased from 203,469 acres in 2007 to 246,012 acres in 2008.

Designated Farmland

"Designated Farmland" is a resource based on soil types which is mapped by the DOC. The DOC maps important farmland across the state. Based on DOC maps for Western Riverside County, the project site is identified as having approximately 691.5 acres of Prime Farmland, 244.3 acres of Farmland of Statewide Importance, 34.7 acres of Unique Farmland and 1,465.0 acres of Farmland of Local Importance. (**Figure 4.1-1, Important Farmland**)

Land must meet land use and soil criteria to be mapped as Prime Farmland or Farmland of Statewide Importance. To meet the land use criteria, the land has been used for irrigated agricultural production at some time during the four years prior to the designated farmland date. To meet the soil criteria, the soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the USDA Natural Resources Conservation Service (NRCS). NRCS compiles lists of which soils in each survey area meet the quality criteria. Factors considered in qualification of a soil by NRCS include, but are not limited to: water moisture regimes, soil temperature range, acid-alkali balance, soil sodium content, flooding, erodibility, and soil rooting depth.

The DOC defines "Farmland of Local Importance" as land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production, but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county. As indicated in the Riverside County General Plan (Open Space Element, Chapter 5, OS-14), these soils have locally significant economic importance, and include the following: "lands with soils that would be classified as Prime or Statewide Important Farmlands but lack available irrigation water; lands planted in 1980 or 1981 in dry land grain crops such as barley, oats, and wheat; lands producing major crops for Riverside County but that are not listed as Unique Farmland crops (including permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelon; dairy lands including corrals, pasture, milk facilities, hay and manure storage areas if accompanied with permanent pasture or hay land of 10 acres or more; lands identified by the County with Agriculture land use designations or contracts; and lands planted with jojoba that are under cultivation and are of production age."



Sources: California Dept. of Conservation, FMMP, 2004; Eagle Aerial, 2010.

0 2,000 4,000 Feet

Figure 4.1-1
Important Farmlands

Related Regulations

The California Land Conservation Act (Williamson Act) was passed in 1965 to protect specific parcels of land in agricultural and open space use. It allows landowners to enter into contracts with local governments and in return receive lower property tax assessments.

Administration of the agricultural preserve program in the City of Perris involves two sets of records; one being the contract between the property owner and the City of Perris (or the County of Riverside if the subject property was within unincorporated Riverside County at the time the contract was executed), and the other being agricultural preserve maps establishing the boundaries of lands under contract. Contracts within Riverside County and the City of Perris are valid for an initial period of ten years and automatically renew each year to maintain a ten-year life. The property owner may file a Notice of Non-renewal, stopping the automatic annual renewals and placing the contract in a status in which it runs out over the remaining life of the contract until the contract expires. Alternately, a property owner may request the cancellation of a contract, which is subject to an approval process and cancellation fees (also referred to as "penalties"), to provide an immediate end to the contract. When a Notice of Non-renewal has matured (i.e., the remaining years have run out and the property is no longer subject to the contract) or a cancellation occurs, removal of the subject land from the affected agricultural preserve requires a separate action to amend the official agricultural preserve maps by diminishing or disestablishing the agricultural preserve.

Design Considerations

No specific design measures that would avoid or reduce significant impacts to agricultural lands or operations are proposed as part of this project.

Thresholds of Significance

The City of Perris has not established local CEQA significance thresholds and instead, defers to the thresholds of significance identified in Appendix G to the State *CEQA Guidelines*. Based on Appendix G to the State *CEQA Guidelines*, impacts related to agricultural resources may be considered potentially significant if the proposed project would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

Environmental Impacts

Threshold: *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*

The project site includes a mix of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Urban and Built-up Land, and Other Land. Prime Farmland includes lands with the best combination of physical and chemical features for the production of agricultural crops, and encompasses approximately 691.5 acres of the project site. Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance encompass approximately 244.3 acres, 34.7 acres and 1,465.0 acres of the project site, respectively (**Figure 4.1-1, Important Farmland**). The PVCC would guide the conversion of these designated Farmlands to urban uses.

The 1991 General Plan Land Use Element eliminated the "agricultural" land use designation. Accordingly, the EIR prepared in conjunction with the 1991 General Plan identified conversion of agricultural land as a significant cumulative impact. Findings and facts indicating that certain social and economic factors outweighed the cumulative impacts associated with conversion of agricultural land to non-agricultural use and a Statement of Overriding Considerations was adopted. Since the City of Perris eliminated all agricultural land use designations in the 1991 General Plan Land Use Element, the Perris GP does not include an Agricultural Resources Element. However, Section 6.2 (Issues Found Not To Be Significant, Agricultural Resources) of the Perris GP EIR, which is hereby incorporated herein by reference, directly addressed this threshold topic.

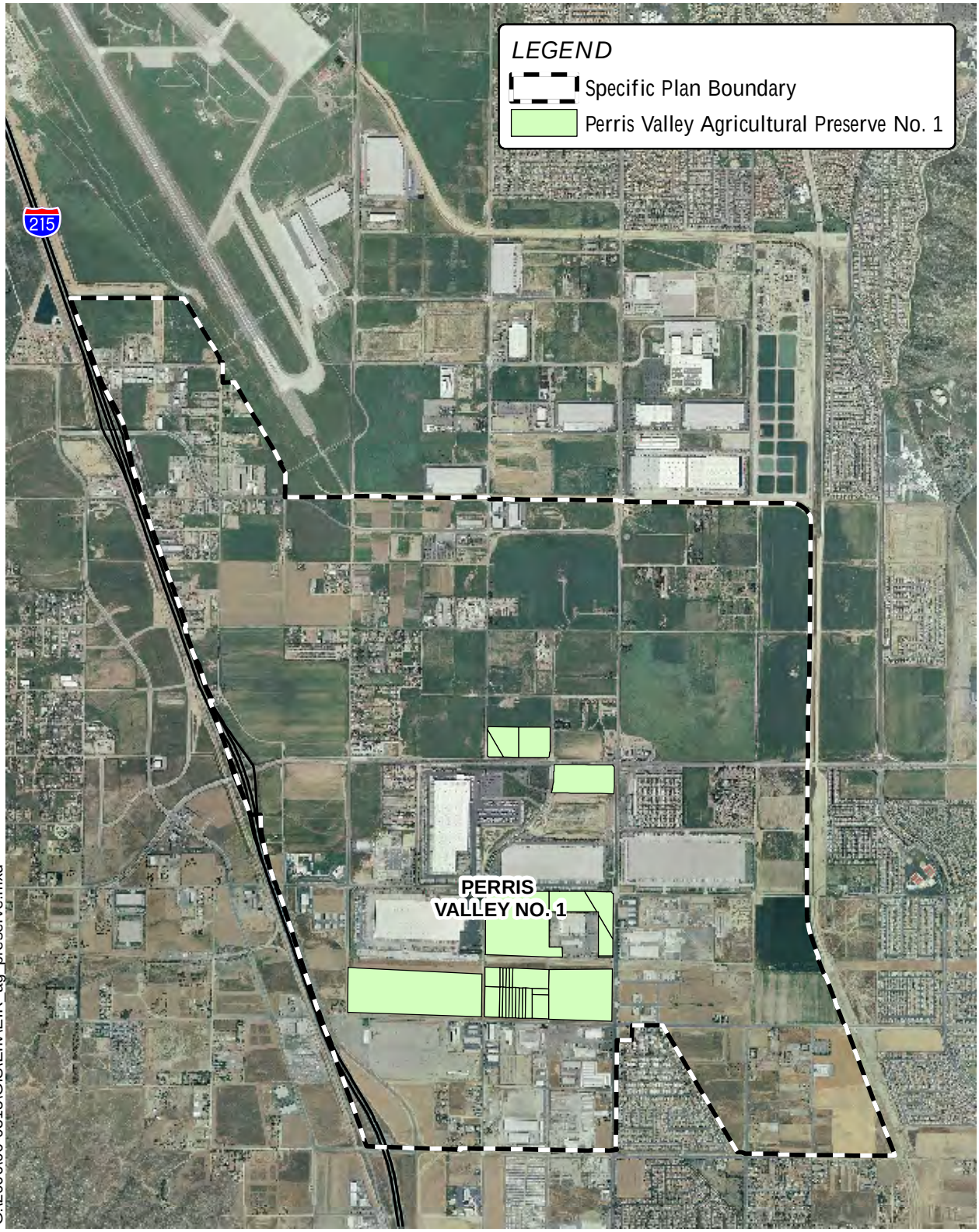
The Perris GP EIR determined that adoption of the City of Perris GP would have no impacts related to the conversion of Farmland to non-agricultural uses. The basis provided in the Perris GP EIR for this determination was that "The 1991 General Plan Land Use Element eliminated the 'agricultural' land use designation. Accordingly, the Environmental Impact Report prepared in conjunction with the 1991 General Plan identified conversion of agricultural land as a significant cumulative impact. Findings and facts indicating that certain social and economic factors outweighed the cumulative impacts associated with conversion of agricultural land to non-agricultural use and a Statement of Overriding Considerations were thereby adopted. Accordingly, adoption and implementation of General Plan 2030 will have no impact."

Although build-out of the project site under the PVCC will result in the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance ("farmland") to non-agricultural uses, that conversion was previously addressed in the EIR that was prepared for the City of Perris' 1991 General Plan and in the Perris GP EIR. Inasmuch as a Statement of Overriding Considerations was adopted for the loss of designated farmland related to the 1991 General Plan; the Perris GP EIR found that the continuation of non-agricultural land use designations on farmland within the City would result in no impacts. Similar to the Perris GP, the proposed project continues to designate farmland within the project area with non-agricultural land use designations. Therefore, the findings contained within the Perris GP EIR are also applicable to the proposed project and it can be concluded that the proposed project will also have **no new significant impact related to the conversion of farmland to non-agricultural uses**.

Threshold: *Conflict with existing zoning for agricultural use, or a Williamson Act Contract.*

The proposed project site contains 29 parcels encompassing approximately 204 acres within active Williamson Act contracts. These parcels are located within the Perris Valley Agricultural Preserve No. 1, Map No. 56. (**Figure 4.1-2, Agricultural Preserves**). The PVCC proposes non-agricultural land uses on the property located within the Perris Valley Agricultural Preserve No. 1. Although the proposed PVCC designates the properties located within the agricultural preserve for non-agricultural uses; development of

the affected agricultural preserve property will be required to comply with the regulatory requirements of the Williamson Act, as implemented by the City of Perris.



Source: Riverside County GIS, March 2008; Eagle Aerial, 2010.

0 2,000 4,000 Feet

Figure 4.1-2
Agricultural Preserves

Section 6.2 (Issues Found Not To Be Significant, Agricultural Resources) of the Perris GP EIR determined that the City of Perris GP had no impacts related to a conflict with existing zoning for agricultural uses, or a Williamson Act Contract. The basis provided in the Perris GP EIR for this determination is that, "The 1991 General Plan Land Use Element redesignated all agricultural lands for uses other than agriculture. Remaining land zoned for agricultural use is subject to a Williamson Act contract for which a notice of non-renewal has been filed indicating that the land will be taken out of agricultural production. Adoption and implementation of General Plan 2030 will have no impact on the non-renewal."

Approximately 187.1 acres on 25 parcels[1] within the City remains zoned for agricultural uses (i.e., A1 – Light Agriculture). According to the Perris GP EIR, the remaining land zoned for agricultural use is subject to a Williamson Act contract, for which a Notice of Non-renewal has been filed, thereby stopping the automatic annual renewals and placing the contract in a status in which it runs out over the remaining life of the contract until the contract expires. When a Notice of Non-renewal has matured (i.e., the remaining years have run out and the property is no longer subject to the contract) or a cancellation occurs, removal of the subject land from the affected agricultural preserve requires a separate action to amend the official agricultural preserve maps by diminishing or disestablishing the agricultural preserve.

Although build-out of the project site under the PVCC will result in the elimination of agricultural zoning and agricultural preserves within the project boundaries, those impacts were previously addressed in the EIR that was prepared for the City of Perris' 1991 General Plan and in the Perris GP EIR. The Perris GP EIR found that the continuation of non-agricultural land use designations on agricultural land within the City of Perris would result in no impacts related to conflicts with agricultural zoning and Williamson Act contracts. Similar to the Perris GP, the proposed project continues to designate agricultural property within the project area with non-agricultural land use designations and non-agricultural zoning. Therefore, the findings contained within the Perris GP EIR are also applicable to the proposed project and it can be concluded that the proposed project will also have **no impact related to potential conflicts with existing zoning for agricultural use or a Williamson Act Contract.**

Threshold: *Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use.*

The City of Perris eliminated all agricultural land use designations in the 1991 General Plan Land Use Element. At that time, analysis was performed to determine potential impacts associated with the conversion of the City's agricultural land to non-agricultural uses.

The current Perris GP EIR analyzed potential impacts associated with the implementation of the Perris GP. As described above, Section 6.2 (Issues Found Not To Be Significant, Agricultural Resources) of the Perris GP EIR determined that implementation of the general plan would have no impacts related to changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.. The basis provided in the Perris GP EIR for this determination is that, "Areas surrounding existing agricultural uses have been or will be developed for nonagricultural, urbanized uses. All properties in agricultural production are designated for similar, non-agricultural urbanized uses. General Plan 2030 will replace the 1991 General Plan whose Land Use Element included no 'agricultural' designation. Therefore, adoption and implementation of General Plan 2030 will have no impact."

The Perris GP eliminated all agricultural land use designations within the City, with the adoption of the 1991 General Plan. The Perris GP retained the lack of agricultural land use designations within the city. Since the project is proposing non-agricultural land uses in the same manner that the 1991 General Plan

[1] Riverside County parcel data, 2009

and the Perris GP did and since the City has previously eliminated agriculture as a designated use, the analysis of potential impacts associated with changes in the existing environment which could result in conversion of Farmland to non-agricultural use that was contained within the 1991 General Plan EIR and the Perris GP EIR are also applicable to the proposed project and it can be concluded that such impacts are considered **less than significant**.

Proposed Mitigation Measures

No significant impacts to agricultural resources are anticipated from the implementation of the project. Therefore, no mitigation measures are required.

Summary of Environmental Effects After Mitigation Measures Are Implemented

There are no environmental impacts to agricultural resources anticipated from the implementation of the project and no mitigation measures are required.

4.2 Air Quality

The focus of the following discussion is related to the potential for the proposed project to have impacts related to consistency with applicable air quality plans, compliance with air quality standards, cumulative increases of criteria air pollutants, the exposure of sensitive receptors to substantial pollutant concentrations and the creation of objectionable odors affecting a substantial number of people. This analysis of air quality impacts uses methodologies prescribed by the South Coast Air Quality Management District (SCAQMD), including the URBEMIS 2007 computer program, Version 9.2.4. Appendix C contains the worksheets and computations that document the analysis and support the conclusions presented in this section.

In response to the NOP, a comment letter was received from the SCAQMD, which requested that all air quality analysis be prepared in accordance with all SCAQMD methodology as presented in the letter. This EIR is programmatic and not project specific, and many of the specific requests by SCAQMD do not pertain to this level of analysis. Further analysis will be required through Mitigation Measures which will address concerns by SCAQMD, which have been incorporated into this section of the EIR.

In addition to other documents, the following references were used in the preparation of this section of the Draft EIR:

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Setting

The Perris Valley Commerce Center Specific Plan (PVCC) is located over approximately 3,500 gross acres within the City of Perris, Riverside County. The project site is located east of Interstate-215, west of the Perris Valley Storm Channel (PVSC), south of March Air Reserve Base, and north of Placentia Street. At this time, a large portion of the proposed PVCC area is undeveloped land currently used for agriculture. The other portions contain some existing developments including warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community, and a mobile home subdivision. The surrounding area includes the City of Moreno Valley and March Air Reserve Base to the north, the community of Mead Valley, an unincorporated area of Riverside County to the west, and more developed areas of the City of Perris to the south and east.

Surrounding land uses include the following:

North: Vacant land, March Air Reserve Base and industrial uses within Moreno Valley jurisdiction
South: Industrial, residential and vacant land
East: Perris Valley Storm Channel, residential and vacant land
West: Vacant property, industrial uses, Interstate-215 and an existing rail line within Riverside County jurisdiction.

The PVCC site is located within City of Perris Planning Areas 1 and 3, and partially within Planning Areas 4 and 5 of the General Plan. The proposed PVCC land use designations generally correspond with the current City of Perris General Plan (Perris GP) land use designations with the following exceptions: the Community Commercial (CC) and Neighborhood Commercial (NC) land use designations have been combined into one designation – Commercial (C). Business Park (BP) and Professional Office (PO) have also been combined to form one designation – Business/Professional Office (BPO). Public/Semi-Public/Utilities (P) and Park, Recreational, and Natural Open Space (OS) have been combined to Public (P).

Physical Setting

The proposed project is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the SCAQMD. The SCAB consists of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. Regional and local air quality within the SCAB is affected by topography, atmospheric inversions, and dominant onshore flows. Topographic features such as the San Gabriel, San Bernardino, and San Jacinto Mountains form natural horizontal barriers to the dispersion of air contaminants. The presence of atmospheric inversions limits the vertical dispersion of air pollutants. With an inversion, the temperature initially follows a normal pattern of decreasing temperature with increasing altitude; however, at some elevations, the trend reverses and temperature begins to increase as altitude increases. This transition to increasing temperature establishes the effective mixing height of the atmosphere and acts as a barrier to vertical dispersion of pollutants.

Dominant onshore flow provides the driving mechanism for both air pollution transport and pollutant dispersion. Air pollution generated in coastal areas is transported east to inland receptors by the onshore flow during the daytime until a natural barrier (the mountains) is confronted, limiting the horizontal dispersion of pollutants. The result is a gradual degradation of air quality from coastal areas to inland areas, which is most evident with the photochemical pollutants such as ozone formed under reactions with sunlight.

Climate

Terrain and geographical location determine climate in the SCAB. The project site lies within the terrain south of the San Gabriel and San Bernardino Mountains and north of the Santa Ana Mountains. The climate in the SCAB is typical of southern California's Mediterranean climate, which is characterized by dry, warm summers and mild winters. Winters typically have infrequent rainfall, light winds, and frequent early morning fog and clouds that turn to hazy afternoon sunshine.

The following includes factors that govern micro-climate differences among inland locations within the SCAB: 1) the distance of the mean air trajectory from the site to the ocean; 2) the site elevation; 3) the existence of any intervening terrain that may affect airflow or moisture content; and 4) the proximity to canyons or mountain passes. As a general rule, locations farthest inland from the ocean have the hottest summer afternoons, the lowest rainfall, and the least amount of fog and clouds. Foothill communities in the SCAB have greater levels of precipitation, cooler summer afternoons and may be exposed to wind funneling through nearby canyons during Santa Ana winds. Terrain will generally steer local wind patterns. The project site is located within the City of Perris, east of the I-215 freeway, south of SR-60, and west of Lake Perris State Recreational Area, within the eastern portion of the SCAB.

Precipitation and Temperature

Annual average temperatures in the SCAB are typically in the low to mid-60s (degrees Fahrenheit). Temperatures above 100 degrees are recorded for all portions of the SCAB during the summer months.

The rainy season in the SCAB is November to April. Summer rainfall can occur as widely scattered thunderstorms near the coast and in the mountainous regions in the eastern SCAB. Rainfall averages vary over the SCAB. For example, the City of Riverside averages 9 inches of rainfall, while the City of Los Angeles averages 14 inches. Rainy days vary from 5 to 10 percent of all days in the SCAB, with the most frequent occurrences of rainfall near the coast.

Winds

The interaction of land (offshore) and sea (onshore) breezes control local wind patterns in the area. Daytime winds typically flow from the coast to the inland areas, while the pattern typically reverses in the evening, flowing from the inland areas to the ocean. Air stagnation may occur in the early evening and early morning during periods of transition between day and nighttime flows.

Approximately 5 to 10 times a year, the project site vicinity experiences strong, hot, dry desert winds known as the Santa Ana winds. These winds, associated with atmospheric high pressure, originate in the upper deserts and are channeled through the passes of the San Bernardino Mountains and into the inland valleys. Santa Ana winds can last for a period of hours or days, and gusts of over 60 miles per hour have been recorded.

High winds, including Santa Ana winds, affect dust generation characteristics and create the potential for off-site air quality impacts, especially with respect to airborne nuisance and particulate emissions. Local winds in the project area are also an important meteorological parameter because they control the initial rate of dilution of locally-generated air pollutant emissions.

Categories of Emission Sources

Air pollutant emissions sources are typically grouped into two categories: stationary and mobile sources. These emission categories are defined and discussed in the following subsections.

Stationary Sources

Stationary sources are divided into two major subcategories: point and area sources. Point sources consist of a single emission source with an identified location at a facility. A single facility could have multiple point sources located on-site. Stationary point sources are usually associated with manufacturing and industrial processes. Examples of point sources include boilers or other types of combustion equipment at oil refineries, electric power plants, etc. Area sources are small emission sources that are widely distributed, but are cumulatively substantial because there may be a large number of sources. Examples include residential water heaters; painting operations; lawn mowers; agricultural fields; landfills; and consumer products, such as barbecue lighter fluid and hair spray.

Mobile Sources

Mobile sources are motorized vehicles, which are classified as either on-road or off-road. On-road mobile sources typically include automobiles and trucks that operate on public roadways. Off-road mobile sources include aircraft, ships, trains, and self-propelled construction equipment that operate off public roadways. Mobile source emissions are accounted for as both direct source emissions (those directly emitted by the individual source) and indirect source emissions, which are sources that by themselves do not emit air contaminants but indirectly cause the generation of air pollutants by attracting vehicles. Examples of indirect sources include office complexes, commercial and government centers, sports and recreational complexes, and residential developments.

Air Pollution Constituents

Criteria Pollutants

Air pollutants are classified as either primary, or secondary, depending on how they are formed. Primary pollutants are generated daily and are emitted directly from a source into the atmosphere. Examples of primary pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2) and nitric oxide (NO)—collectively known as oxides of nitrogen (NO_X), sulfur dioxide (SO_2), particulates (PM-10 and PM-2.5) and various hydrocarbons (HC) or volatile organic compounds (VOC), which are also referred to as reactive organic gases (ROG). The predominant source of air emissions generated by the project development is expected to be vehicle emissions. Motor vehicles primarily emit CO, NO_X, and VOC/ROG/HC (Volatile Organic Compounds/Reactive Organic Gases/Hydrocarbons).

Secondary pollutants are created over time and occur within the atmosphere as chemical and photochemical reactions take place. An example of a secondary pollutant is ozone (O_3), which is one of the products formed when NO_X reacts with HC, in the presence of sunlight. Other secondary pollutants include photochemical aerosols. Secondary pollutants such as ozone represent major air quality problems in the SCAB.

The Federal Clean Air Act of 1970 established the National Ambient Air Quality Standards (NAAQS). Six "criteria" air pollutants were identified using specific medical evidence available at that time, and NAAQS were established for those chemicals. The State of California has adopted the same six chemicals as criteria pollutants, but has established different allowable levels. The six criteria pollutants are: carbon monoxide, nitrogen dioxide, ozone, lead, particulates less than 10 microns in size, and sulfur dioxide. The following is a further discussion of the criteria pollutants, as well as volatile organic compounds.

- **Carbon Monoxide (CO)** – A colorless, odorless toxic gas produced by incomplete combustion of carbon-containing substances. Concentrations of CO are generally higher during the winter months when meteorological conditions favor the build-up of primary pollutants. Automobiles are the major source of CO in the SCAB, although various industrial processes also emit CO through incomplete combustion of fuels. In high concentrations, CO can cause serious health problems in humans by limiting the red blood cells' ability to carry oxygen (SCAQMD 1993).

- **Oxides of Nitrogen (NO_X)** – Those that are important in air pollution are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed by a combination of nitrogen and oxygen when combustion takes place under high temperatures and pressures. NO_2 is a reddish-brown gas formed by the combination of NO with oxygen. Combustion in motor vehicle engines, power plants, refineries and other industrial operations, as well as ships, railroads, and aircraft are the primary sources of NO_X. NO_2 at atmospheric concentrations is a potential irritant that can cause coughing in healthy people; can alter respiratory responsiveness and pulmonary functions in people with preexisting respiratory illness; and potentially lead to increased levels of respiratory illness in children (EPA 2005).

- **Ozone (O_3)** – A colorless, toxic gas that irritates the lungs and damages materials and vegetation. During the summer's long daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between NO_2 and VOC which result in the formation of O_3. Conditions that lead to high levels of O_3 are adequate sunshine, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer (all of which are characteristic of western Riverside County). Ozone represents the worst air pollution-related health threat in the SCAB as it affects people with preexisting respiratory illness, as well as, reduces lung function in

healthy people. Studies have shown that children living within the SCAB experience a 10–15 percent reduction in lung function (SCAQMD 1993).

- **Atmospheric Particulate Matter (PM) –** Made up of fine solid and liquid particles, such as soot, dust, aerosols, fumes, and mists. PM-10 consists of particulate matter that is 10 microns or less in diameter, and PM-2.5 consists of particulate matter of 2.5 microns or less in size. Both PM-10 and PM-2.5 can be inhaled into the deepest part of the lung, attributing to health effects. The presence of these fine particles by themselves cause lung damage and interfere with the body's ability to clear its respiratory tract. Said particles can also act as a carrier of other toxic substances (SCAQMD 1993). The sources contributing to particulate matter pollution include: road dust, windblown dust, agriculture, construction, fireplaces and wood burning stoves, and vehicle exhaust. Specifically, SCAQMD data indicates that the largest component of PM-10 particles in the area comes from dust (unpaved roads, unpaved yards, agricultural lands, and vacant land that has been disked). PM-2.5 particles are mostly manmade particles resulting from combustion sources. According to SCAQMD, one component of PM-2.5 pollution in Riverside comes from ammonium nitrate (NH_4NO_3) particulates. NO_X, emitted throughout the SCAB by vehicles, reacts with ammonia produced from livestock and horses to form ammonium nitrate. Organic carbon particles generated from paints, degreasers, and vehicles are another component of PM-2.5 pollution. The last notable constituent of PM-2.5 sources is elemental carbon, which is used as a surrogate for diesel particulates.

- **Sulfur dioxide (SO_2)** – A colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. SO_2 can result in temporary breathing impairment in asthmatic children and adults engaged in active outdoor activities. When combined with PM, SO_2 can cause symptoms such as shortness of breath and wheezing; and, with long-term exposure, it can lead to the exacerbation of existing cardiovascular disease and respiratory illnesses (EPA 2005). Although SO_2 concentrations have been reduced to levels well below state and federal standards, further reductions in SO_2 emissions are needed because SO_2 is a precursor to sulfate and PM-10.

- **Lead (Pb)** – Lead concentrations once exceeded the state and federal air quality standards by a wide margin, but have not exceeded state or federal air quality standards at any regular monitoring station since 1982. Health effects associated with lead include neurological impairments, mental retardation, and behavioral disorders. At low levels, lead can damage the nervous systems of fetuses and result in lowered IQ levels in children (EPA 2005). Though special monitoring sites immediately downwind of lead sources recorded very localized violations of the state standard in 1994, no violations have been recorded at these stations since 1996. Unleaded gasoline has greatly contributed to the reduction in lead emissions in the SCAB. Since the proposed project will not involve leaded gasoline, or other sources of lead emissions, this criteria pollutant is not expected to be a factor with project implementation.

- **Reactive Organic Gases/Volatile Organic Compounds (ROG/VOC)** - It should be noted that there are no state or federal ambient air quality standards for VOCs because they are not classified as criteria pollutants. VOCs are regulated; however, a reduction in VOC emissions reduces certain chemical reactions, which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM-10 and lower visibility levels. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere, even at low concentrations, are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for

example, is a hydrocarbon component of VOC emissions that is known to be a human carcinogen.

Toxic Air Contaminants

Toxic air contaminants (TACs) are chemicals generally referred to as "non-criteria" air pollutants which are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. There are hundreds of air toxics; and, exposure to these pollutants can cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Effects may be both chronic (i.e., of long duration) or acute (i.e., severe but of short duration) on human health. Acute health effects are attributable to sudden exposure to high quantities of air toxics. These effects can include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects usually result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a latency period of 10–30 years after exposure to develop.

In 2000, the SCAQMD released the Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II). The monitoring portion of MATES-II was designed to measure numerous air toxic compounds at different locations in the SCAB in order to establish a baseline of existing air toxic ambient concentrations, as well as risk level data; and to assist in the assessment of modeling performance accuracy. Ten sites were selected and air samples were collected for up to one year. The ten locations are in Anaheim, Burbank, Compton, Fontana, Huntington Park, Long Beach, Los Angeles, Pico Rivera, Rubidoux, and Wilmington. Rubidoux is the nearest monitoring site and is approximately thirteen miles northwest of the proposed project.

In September 2008, the SCAQMD released the Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-III). The ten monitoring sites listed above remained the same for the MATES-III study, with the exception of the Wilmington Station moving 2.5 miles east. Similar to the results of the MATES-II study, the MATES-III study showed that areas with the maximum simulated risk were located in proximity to the Ports of Los Angeles and Long Beach. Areas with the highest risk outside of the port area extend from central Los Angeles southeast along the Interstate 5 corridor. Other elevated areas include the eastern Basin near the communities of Colton and Inland Valley San Bernardino. As with the MATES II analysis, areas projected to have higher risk followed transportation corridors, including freeways and railways. Los Angeles County bears the greatest average risk at 951 per one million person population. Orange County has the second highest number of projected risk at 781 per one million person population. Risk in the Eastern Basin is lower. The estimated risk for San Bernardino is 712 per million, and Riverside was estimated to have the lowest population-weighted risk at 485. It should be noted that these are county-wide averages, and individual communities could have higher risks than the average if they are near emissions sources, such as rail yards or intermodal facilities.

Key findings in the MATES-III study showed that there are several uncertainties in estimating air toxics risks. These include uncertainties in the cancer potencies of the substances, in the estimates of population exposure, and uncertainty in estimating the level of diesel particulate. Although there are uncertainties in the ambient estimates, diesel particulate continues to be the dominant toxic air pollutant based on cancer risk. This finding holds up regardless of methodology used. The study findings therefore clearly call for a step-up in reducing diesel emissions as early as practicable and as aggressively as feasible. Goods movement is a substantial source of diesel emissions. With the projected future growth in goods movement, diesel emissions may increase. The interplay between (a) the increase in goods movement and (b) projected emission reduction strategies will be crucial in determining whether diesel exposures are reduced in the future. (MATES-III)

Diesel Emissions

Diesel engines utilize compression, contrary to standard gasoline engines which use conventional spark plugs, to ignite fuel. Engines that use compression typically run at higher temperatures than gasoline engines, thereby causing the oxygen and nitrogen present in air during intake, to form oxides of nitrogen (NO_X). To combat NO_X production in a diesel engine, the engine temperature can be reduced however, increased amounts of particulate matter (PM) and hydrocarbons (HC) are produced as byproducts of the now uncombusted fuel. Hydrocarbons, once in the atmosphere, react with NO_X to produce ozone (O_3), among other pollutants.

Diesel exhaust composition is dependent on many factors: fuel composition, engine type, lubricating oils, and emission control systems. Diesel exhaust is a complex mixture of thousands of gases and fine particles. The gaseous fraction of diesel exhaust is comprised of typical combustion gases such as oxygen, carbon dioxide, nitrogen, and water vapor. However, air pollutants such as carbon monoxide, sulfur oxides (SO_X), nitrogen oxides (NO_X), volatile hydrocarbons, and low-molecular weight polycyclic aromatic hydrocarbons (PAH) and PAH-derivatives are also components of the gaseous fraction. Additionally, some of the gaseous components, such as benzene, are known carcinogens.

The particle fraction of diesel exhaust is comprised of aggregates of carbon particles with inorganic and organic substances adhered to them. The inorganic fraction of diesel exhaust particles consists of solid carbon (or elemental carbon) particles ranging in size from 0.01 to 0.08 microns in diameter. The organic fraction consists of soluble organic compounds such as aldehydes, alkanes, alkenes, PAH, and PAH derivatives. The total component of a diesel particle (inorganic + organic) is in the fine particle range of 10 microns in size or less (width of a human hair), but 92 percent of these diesel particles are even smaller, at less than 1 micron in diameter.

Diesel particles can remain airborne for up to 10 days because of their small size. Therefore, they do not fall out or precipitate easily, and remain an air quality problem for some time after being emitted. Scientists use elemental carbon as a surrogate since there is no current technology available to monitor directly for diesel particles. The addition of diesel particulate toxicity dramatically increases carcinogenic risk. The MATES-II study modeled cancer risk[1] for diesel particulates for the Rubidoux site at approximately 1,000 cases of cancer per one million people. The MATES-III results show that the modeled cancer risk from emissions of diesel particulates at the Rubidoux Station is approximately 950 in one million. It should be noted that different methods were used to estimate diesel particulate levels in the MATES-III Study; so, the results of the two MATES studies are not strictly comparable. This cancer risk is what residents are currently exposed to in that portion of the SCAB. The Rubidoux Station location is less than a half-mile south of SR-60 and approximately seven miles east of I-15. Therefore, the Rubidoux Station is approximately 13 miles northwest of the project site. In addition to the results for the specified monitoring sites, the MATES-III document also shows the estimated regional cancer risk for the entire SCAB. It shows that the area surrounding the project site has a modeled cancer risk ranging from approximately 407 to 566 cases of cancer per one million people. Therefore, existing conditions in the project area are less impacted by diesel emissions as opposed to the area surrounding the Rubidoux Monitoring Station.

It is important to understand that the cancer risks estimated by the California Air Resources Board (CARB) related to mobile-source diesel exhaust and health risk assessment studies represent the probability that a person develops cancer; the estimated risks do not represent mortality rates.

[1] Cancer risk represents the number of estimated cancer cases that will occur among residents in this portion of the basin.

Greenhouse Gases and Global Climate Change

Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. This layer of gases in the atmosphere functions much the same as glass in a greenhouse (i.e., both prevent the escape of heat). This is why global warming is also known as the "greenhouse effect." Increased emissions of these gases, due to combustion of fossil fuels and other activities, have increased the greenhouse effect, leading to global warming and other climate changes. Gases responsible for global climate change in the SCAB and their relative contribution to the overall warming effect are carbon dioxide (55 percent), chlorofluorocarbons (CFCs) (24 percent), methane (15 percent), and nitrous oxide (6 percent) (SCAQMD 2005). It is widely accepted that continued increases in GHG will contribute to global climate change although there is uncertainty concerning the magnitude and timing of future emissions and the resultant warming trend (SCAQMD 2005). Human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors contribute to these GHG (CEC 2006a). According to the California Energy Commission (CEC) in 2004, transportation was responsible for 41 percent of the state's GHG emissions, followed by electricity generation (CEC 2006a). More recently, CARB reported that transportation was 38 percent of the state's GHG emissions in 2004, followed by electricity generation (CARB 2007). Emissions of carbon dioxide (CO_2) and nitrous oxide (N_2O) are byproducts of fossil fuel combustion. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices, landfills, and wastewater treatment.

"Stratospheric ozone depletion" refers to the slow destruction of naturally occurring ozone, which lies in the upper atmosphere (called the stratosphere) and which protects Earth from the damaging effects of solar ultraviolet radiation. Certain compounds, including CFCs, halons, carbon tetrachloride, methyl chloroform, and other halogenated compounds, accumulate in the lower atmosphere and then gradually migrate into the stratosphere. In the stratosphere, these compounds participate in complex chemical reactions to destroy the upper ozone layer. Destruction of the ozone layer increases the penetration of ultraviolet radiation to the Earth's surface, a known risk factor that can increase the incidence of skin cancers and cataracts, contribute to crop and fish damage, and further degrade air quality (SCAQMD 2005).

GHG and ozone-depleting gases include, but are not limited to, the following:

- **Carbon dioxide –** Carbon dioxide results from fossil fuel combustion in stationary and mobile sources. It contributes to the greenhouse effect, but not to stratospheric ozone depletion. In 2004, carbon dioxide accounted for approximately 84 percent of total GHG emissions in the state (CEC 2006a). In the SCAB, approximately 48 percent of carbon dioxide emissions come from transportation, residential and utility sources which contribute approximately 13 percent each, 20 percent come from industry, and the remainder comes from a variety of other sources (SCAQMD 2005).

- **Methane –** Atmospheric methane is emitted from both non-biogenic and biogenic sources. Non-biogenic sources include fossil fuel mining and burning, biomass burning, waste treatment, geologic sources, and leaks in natural gas pipelines. Biogenic sources include wetlands, rice agriculture, livestock, landfills, forest, oceans, and termites. Methane sources can also be divided into anthropogenic and natural. Anthropogenic sources include rice agriculture, livestock, landfills, waste treatment, some biomass burning, and fossil fuel combustion. Natural sources are wetlands, oceans, forests, fire, termites, and geological sources. Anthropogenic sources currently account for more than 60 percent of the total global emissions. It is a greenhouse gas and traps heat 40–70 times more effectively than carbon dioxide. (SCAQMD 2005) In the SCAB, more than 50 percent of human-induced methane emissions come from natural gas pipelines, while landfills contribute 24 percent. Methane emissions from landfills are reduced by SCAQMD Rule 1150.1 –

Control of Gaseous Emissions from Active Landfills. Methane emissions from petroleum sources are reduced by a number of rules in SCAQMD Regulation XI that control fugitive emissions from petroleum production, refining, and distribution (SCAQMD 2005).

- **Other regulated greenhouse gases include Nitrous Oxide, Sulfur Hexafluoride, Hydrofluorocarbons, and Perfluorocarbons** – These gases all possess heat-trapping potentials hundreds to thousands of times more effective than carbon dioxide. Emission sources of nitrous oxide gases include, but are not limited to, waste combustion, wastewater treatment, fossil fuel combustion, and fertilizer production. Because the volume of emissions is small, the net effect of nitrous oxide emissions relative to carbon dioxide or methane is relatively small. Sulfur hexafluoride, hydrofluorocarbon, and perfluorocarbon emissions occur at even lower rates.

- **Chlorofluorocarbons** – Chlorofluorocarbons (CFCs) are emitted from blowing agents used in producing foam insulation. They are also used in air conditioners and refrigerators and as solvents to clean electronic microcircuits. CFCs are primary contributors to stratospheric ozone depletion and to global warming. Sixty-three percent of CFC emissions in the SCAB come from the industrial sector. Federal regulations require service practices that maximize recycling of ozone-depleting compounds (both CFCs, hydro-chlorofluorocarbons and their blends) during the servicing and disposal of air-conditioning and refrigeration equipment. SCAQMD Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems requires CFC refrigerants to be reclaimed or recycled from stationary refrigeration and air conditioning systems. SCAQMD Rule 1405 – Control of Ethylene Oxide and Chlorofluorocarbon Emissions from Sterilization or Fumigant Processes requires recovery of reclamation of CFCs at certain commercial facilities and eliminates the use of some CFCs in the sterilization processes. Some CFCs are classified as TACs and regulated by SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants and SCAQMD Rule 1402 Control of Toxic Air Contaminants from Existing Sources.

- **Halons –** These compounds are used in fire extinguishers and behave as both ozone-depleting and GHG. Halon production ended in the United States in 1993. SCAQMD Rule 1418 – Halon Emissions from Fire Extinguishing Equipment requires the recovery and recycling of halons used in fire extinguishing systems and prohibits the sale of halon in small fire extinguishers.

- **Hydro-chlorofluorocarbons –** HCFCs are solvents, similar in use and chemical composition to CFCs. The hydrogen component makes HCFCs more chemically reactive than CFCs, allowing them to break down more quickly in the atmosphere. These compounds deplete the stratospheric ozone layer, but to a much lesser extent than CFCs. HCFCs are regulated under the same SCAQMD rules as CFCs.

- **1,1,1,-trichloroethane (TCA**) – TCA (methyl chloroform) is a solvent and cleaning agent commonly used by manufacturers. It is less destructive on the environment than CFCs or HCFCs, but its continued use will contribute to global warming and ozone depletion. 1,1,1-trichloroethane (TCA) is a synthetic chemical that does not occur naturally in the environment. No TCA is supposed to be manufactured for domestic use in the United States after January 1, 2002 because it affects the ozone layer. TCA had many industrial and household uses, including use as a solvent to dissolve other substances, such as glues and paints; to remove oil or grease from manufactured metal parts; and as an ingredient of household products such as spot cleaners, glues, and aerosol sprays. SCAQMD regulates this compound as a toxic air contaminant under Rules 1401 and 1402.

As emissions of GHGs increase, temperatures in California are projected to rise significantly over the twenty-first century. The modeled magnitudes of the warming vary because of uncertainties in future

emissions and in the climate sensitivity. According to the California Climate Change Center (CEC 2005), there are three projected warming scenarios referred to as the low, medium, and high range. These expected increases from 2000 to 2100 vary from approximately 1.7°C–3.0°C (3.0°F–5.4°F) in the lower range of projected warming, 3.1°C–4.3°C (5.5°F–7.8°F) in the medium range, and 4.4°C–5.8°C (8.0°F–10.4°F) in the higher range. To comprehend the magnitude of these projected temperature changes over the next century, the lower range of projected temperature rise is slightly larger than the difference in annual mean temperature between Monterey and Salinas which is 2.5°F; and, the upper range of project warming is greater than the temperature difference between San Francisco and San Jose which is 7.4ªF.

Other resource areas could be affected as a result of GHGs. For example, increased global average temperature will cause increases to ocean temperatures; and, the Pacific Ocean strongly influences the climate within California. As the temperature of the ocean warms, it is anticipated that rain will fall instead of snow in the Sierra Nevada during the wet season. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a CEC report, the snowpack portion of the supply could potentially decline by 70–90 percent by the end of the 21st century (CEC 2006b). This phenomenon could lead to significant challenges securing an adequate water supply for a growing population.

Some models indicate that the increased ocean temperature could result in increased moisture into the state; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential for flood events, placing more pressure on California's levee/flood control system. Sea level has risen approximately 7 inches during the last century; and, according to the CEC report, it is predicted to rise an additional 22–35 inches by 2100, depending on the future GHG emissions levels (CEC 2006b), further straining the state's water conveyance infrastructure.

Another impact of global warming is increased fire hazard. Fire is an important natural disturbance within many California ecosystems that promotes vegetation and wildlife diversity, releases nutrients, and eliminates heavy fuel accumulations that can lead to catastrophic burns. The changing climate could alter fire regimes in ways that could have social, economic, and ecological consequences. As the existing climate throughout California changes over time, mass migration of species, or worse, failure of species to migrate in time to adapt to the changes in climate, could also result.

Many factors contribute to an area being at risk of structural fire in terms of the local fire departments' capabilities to control them, including the construction size and type, built-in protection, density of construction, street widths, and occupancy size. According to the City of Perris's General Plan, the City has been identified as a "Community at Risk" from wildfires. A numerical estimate of the level of risk of "3" has been assigned to portions of the city, which represents highest level of risk. However, the project site is not located in a wildfire hazard area according to *Exhibit S-16: Wildfire Constraint Areas* within the City of Perris General Plan. The closest source of wildfire risk is the Motte Rimrock Reserve, which is approximately 0.5 miles southwest of the project site on the opposite side of Interstate-215 freeway from the project, and is classified as a wildfire hazard area.

Due to its weather, topography, and native vegetation, nearly all of southern California is at some risk from wildland fires also called wildfires. The extended droughts characteristic of California's Mediterranean climate result in large areas of dry vegetation that provide fuel for wildland fires which can spread into urban areas. Wildland-urban fires occur when a fire burning in wildland vegetation gets close enough to ignite urban structures. Areas of dense, dry vegetation, particularly in canyon areas and hillsides, pose the greatest wildland fire potential.

Conservative estimates indicate that the risk of large statewide wildfires, characterized as approximately 500 acres, would rise almost 35 percent by 2050 and 55 percent by 2100 under the medium temperature described previously. Under the low warming range, the increased risk of wildfires is nearly cut in half (CEC 2005).

Wildfires affect public safety and have the potential to significantly impact public health through smoke inhalation. For example, a survey of 26 percent of all tribal households on the Hoopa Valley National Indian Reservation in northern California showed a 52 percent increase in medical visits for respiratory problems during a large fire in 1999, compared to the same period of 1998. More than 60 percent of those surveyed reported an increase in respiratory symptoms during the smoke episode, and 20 percent continued to report increased respiratory symptoms two weeks after the smoke cleared. The projected increases in fire season severity could lead to more "bad air" days. However, quantitative estimation of the impacts of future wildfire events is extremely difficult. The impacts of any fire are unique to that event, and are influenced not only by the magnitude, intensity, and duration of the fire, but also the proximity of the smoke plume to a population (CEC 2005).

Climate change will affect the health of Californians by increasing the frequency, duration, and intensity of ambient conditions conducive to air pollution formation, oppressive heat, and wildfires. Not only are average temperatures expected to increase, but the projected increase in extreme temperatures is also expected to increase which can cause the most serious health impacts. The modeled warming scenarios indicate that the number of extremely hot and extremely cold days will increase by 2100. For Riverside/San Bernardino metropolitan areas, the number of extremely hot days will increase approximately 40 to 80 days per year under the lower and higher warming scenarios, respectively. Recent studies suggest that no capacity for future adaptation to extreme heat is seen in San Bernardino/Riverside metropolitan areas. The results for the San Bernardino/Riverside metropolitan areas actually indicate increased sensitivity during the hottest summers, which is counterintuitive to what might be expected in hot inland urban areas. Current investigations are underway seeking alternative explanations by taking greater account of socioeconomic factors (such as the availability of air conditioning, age structure of the population, and the housing stock) that might explain these non-intuitive results. If, for example, the San Bernardino/Riverside metropolitan area has a lesser proportion of air-conditioned residents than other hot inland urban areas, increased heat could create an indoor environment that is almost intolerable and could lead to greater numbers of deaths. It is clear that a thorough investigation of these socio-economic issues is necessary to understand the increased sensitivity of San Bernardino/Riverside metropolitan area residents to heat during the hottest summers (CEC 2006c).

Unlike criteria air pollutants and TACs, which are pollutants of regional and local concern, global warming is a global problem and GHGs are global pollutants. Impacts of GHG emissions are a function of their total atmospheric concentration and most GHGs are globally well mixed atmospheric constituents. This means that the location of a particular GHG emission, in contrast to the situation for criteria pollutants, does not change its environmental impact.

Globally, for the years 2000 through 2005, the annual average emissions of fossil fuel-related carbon dioxide was 26.4 gigatons of CO_2 (one gigaton equals one billion metric tonnes, MT) per year (IPCC). It should also be noted that the annual total U.S. emissions of GHG dropped 1.5 percent in 2006 from 7,181 million MT to 7,075 million MT, due to warmer weather and decreased energy demand, according to the Energy Information Administration (EIA). During the same timeframe, the U.S. economic output increased 2.9 percent (EIA). This decline results in a GHG intensity reduction of 4.2 percent as a measure of gross domestic product (EIA).

Worldwide, California is the 12th to 16th largest emitter of CO_2, and is responsible for approximately two percent of the world's CO_2 emissions (CEC 2006a). In 2004, the most recent year for which statewide data

is available, the CEC reported that California produced 492 million gross metric tonnes (one metric tonne equals 2,205 pounds) of carbon dioxide-equivalent (CEC 2006a). However, California is the second largest emitter of greenhouse gases in the United States next to Texas, which generates about twice the amount of emissions (CEC 2006a). When considering fossil fuel emissions at the individual person level, California is second lowest in the nation in per capita CO_2 emissions with only the District of Columbia lower (CEC 2006a).

In January 2007, Assembly Bill (AB) 1803 transferred responsibility for developing and maintaining the state's GHG inventory from the CEC to CARB. Using the CEC GHG inventory as a starting point, CARB staff determined the state's 1990 GHG emissions level by conducting a comprehensive review of all GHG emitting sectors. The seven sectors are: Transportation, Electricity Generation, Industrial, Residential, Agriculture, Commercial, and Forestry.

In November 2007, the CARB released its staff report establishing a statewide 1990 GHG emission level and a 2020 emission limit (CARB 2007). As part of this staff report, CARB staff recommended an amount of 427 million metric tonnes of carbon dioxide equivalent ($MMTCO_2e$) as the total statewide GHG 1990 emissions level and 2020 emissions limit. The Board approved the 2020 limit on December 6, 2007. This limit is an aggregated statewide limit, rather than sector- or facility-specific. The staff report also included the statewide GHG emissions for 2004, which were 480 $MMTCO_2e$.

While the inventory data numbers from the CEC and CARB are similar for 2004, these estimates have important differences. Emissions from individual sectors differ between CEC and CARB estimates by up to 30 percent due to updated data, methodologies, and differences in included and excluded emissions. Staff at CARB treated carbon stored in landfills differently than CEC by separately tracking stored carbon instead of considering it an emission sink within a landfill. In addition, the CARB estimate only includes intrastate aviation, whereas the CEC estimates include both interstate and intrastate flights. Staff also included emissions from international shipping and related port activities in California waters, whereas the CEC excluded all emissions from international ships.

Monitored Air Quality

The project site is located within SCAQMD Source Receptor Area (SRA) 24. The most recent published data for SRA 24 is presented in **Table 4.2-A, Air Quality Monitoring Summary – 1999-2009 (SRA 24)**. This data indicates that the baseline air quality conditions in the project area include occasional events of very unhealthful air. However, the frequency of smog alerts has dropped significantly in the last decade. Ozone and particulates are the two most significant air quality concerns in the project area. Atmospheric concentrations of ozone and particulate matter are the two most significant air quality concerns in the project area. It is encouraging to note that ozone levels have dropped significantly in the last few years with approximately one-fifth or less days each year experiencing a violation of the state hourly ozone standard since 1999. Locally, no second stage alert (0.35 ppm/hour) has been called by SCAQMD in over twenty years. In fact, the last second stage alert was in Upland in 1988.

The California Air Resources Board (CARB) established a new 8-hour average California Ozone standard of 0.07 ppm, effective May 17, 2006. The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard of 0.08 ppm effective in June 2005. The federal 8-hour ozone standard was recently revised from 0.08 ppm to 0.075 ppm and became effective on May 27, 2008.

The California NO_2 standards were amended and lowered the 1-hour standard from 0.25 ppm to 0.18 ppm and established a new annual standard of 0.030 ppm. The new standards became effective on March 20, 2008. The EPA has established a new 1-hour NO_2 standard of 0.100 ppm, which became effective on April 7, 2010 (SCAQMD 2009).

Monitoring for PM-2.5 did not begin until 1999. Since then, the annual standard has been consistently exceeded as shown in **Table 4.2-A**. The 1997 Federal Annual Average Standard for PM-2.5 (15 $\mu g/m^3$) was upheld by the U.S. Supreme Court in February 2001. Effective in December 2006, the federal 24-hour PM-2.5 standard was revised from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. The state annual average standard for PM-2.5 (12 $\mu g/m^3$) was finalized in 2003 and became effective on July 5, 2003. Additionally, the Federal Annual PM-10 Standard was revoked in December 2006.

Table 4.2-A, Air Quality Monitoring Summary (SRA 24) – 1999–2009

	Pollutant/Standard Source: SCAQMD	**Monitoring Year**										
		1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
No. Days Exceeded	**Ozone:**											
	Health Advisory – 0.15 ppm	--	--	5	1	1	0	0	3	0	0	0
	California Standard:											
	1-Hour – 0.09 ppm	10	65	73	59	67	37	11	76	66	65	53
	8-Hour – 0.07 ppm [a]	--	--	--	--	--	47	18	84	88	94	88
	Federal Primary Standards:											
	8-Hour – 0.08 ppm (0.075 ppm)[a]	7	41	58	41	47	19	3	53	37(73)	41(77)	(67)
	Max 1-Hour Conc. (ppm)	0.11	0.16	0.152	0.147	0.155	0.128	0.126	0.17	0.139	0.142	0.125
	Max 8-Hour Conc. (ppm)	0.10	0.126	0.136	0.117	0.121	0.103	0.103	0.122	0.116	0.114	0.108
No. Days Exceeded	**Carbon Monoxide [b]:**											
	California Standard:											
	1-Hour – 20 ppm	0	0	0	0	0	0	0	0	0	0	0
	8-Hour – 9.0 ppm	0	0	0	0	0	0	0	0	0	0	0
	Federal Primary Standards:											
	1-Hour – 35 ppm	0	0	0	0	0	0	0	0	0	0	
	8-Hour – 9.0 ppm	0	0	0	0	0	0	0	0	0	0	
	Max 1-Hour Conc. (ppm)	7.0	5.0	5.0	8.0	5	4	3	3	4	3	2
	Max 8-Hour Conc. (ppm)	4.4	4.3	3.4	3.0	3.7	3.0	2.5	2.1	2.9	2.0	1.9
No. Days Exceeded	**Nitrogen Dioxide [b, c]:**											
	California Standard:											
	1-Hour – 0.18 ppm,	0	0	0	0	0	0	0	0	0	0	0
	Federal Standard:											
	Annual Arithmetic Mean (AAM) (ppm)	0.025	0.024	0.025	0.0240 .022	0.022	0.017	0.022	0.020	0.021	0.019	0.017
	Max. 1-Hour Conc. (ppm)	0.13	0.10	0.15	0.10	0.09	0.09	0.08	0.08	0.07	0.09	0.08
No. Days Exceeded	**Sulfur Dioxide [b]:**											
	California Standards:											
	1-Hour – 0.25 ppm	0	0	0	0	0	0	0	0	0	0	0
	24-Hour – 0.04 ppm	0	0	0	0	0	0	0	0	0	0	0
	Federal Primary Standards:											
	24-Hour – 0.14 ppm [d]	0	0	0	0	0	0	0	0	0	0	0
	Annual Standard – 0.03 ppm [d, e]	No	No	No	No	No	No	No	No	No	No	No
	Max. 1-Hour Conc. (ppm)	0.03	0.11	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01
	Max. 24-Hour Conc. (ppm)	0.011	0.041	0.011	0.002	0.012	0.015	0.011	0.004	0.002	0.003	0.003
No. Day Exceede	**Suspended Particulates (PM10):**											
	California Standards:											

	Pollutant/Standard Source: SCAQMD	Monitoring Year										
		1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	24-Hour – 50 μg/m^3	30	13	16	24	19	15	19	19	32	12	9
	Federal Primary Standards:											
	24-Hour – 150 μg/m^3	0	0	0	0	0	0	0	0	0	0	0
	Annual Arithmetic Mean (μg/m^3) [f]	50.0	41.1	40.8	45.2	43.9	41.4	39.2	45.0	54.8	38.3	34.8
	Max. 24-Hour Conc. (μg/m^3)	112	87	86	100	142	83	80	125	120	85	80
No. Days Exceeded	**Suspended Particulates (PM2.5) [b]:**											
	California and Federal Primary Standards:											
	24-Hour – 65 μg/m^3 (35μg/m^3) [g]	9	11	19	8	8	5	4	1(32)	3(33)	0(14)	0(12)
	Annual Arithmetic Mean (μg/m^3) [h]	30.9	28.2	31.3	27.5	24.9	22.1	21.0	19.0	19.1	16.4	15.3
	Max. 24-Hour Conc. (μg/m^3)	111.2	119.6	98.0	77.6	104.3	91.7	98.7	68.5	75.7	57.7	47.2

Note – No data available.

a. 2004 is first year of SCAQMD records for state 8-hour Ozone standard.

b. Metro Riverside County 1 air monitoring station (SRA 23) data summaries used because this pollutant not monitored for SRA 24.

c. Federal NO_2 standard is AAM > 0.053; State NO_2 standard of AAM > 0.030 effective March 20, 2008. EPA has established a new NO_2 standard of 0.100 ppm, effective April 7, 2010.

d. EPA has revised the deferral standard by establishing a new SO_2 1-hour standard of 0.075 ppm and revoking the existing annual (0.03 ppm) and 24-hour (0.14 ppm) standards, effective August 2, 2010.

e. Yes or No indicating whether or not the standard has been exceeded for that year.

f. Federal PM-10 standard is AAM> 50μg/m^3 was revoked December 17, 2006. State standard was AAM> 20μg/m^3, effective July 5, 2003.

g. Federal 24-hour PM-2.5 standard changed to 35μg/m^3 in 2006.

h. Federal PM-2.5 standard is annual average (AAM) > 15μg/m^3. State standard is annual average (AAM) > 12μg/m.

Existing Air Quality Emissions

Long-term emissions were evaluated for "existing" land uses for the year 2009 in order to determine the estimated long-term emissions for existing land uses within the PVCC project area. The long-term emissions for operational and area source emissions were estimated using the URBEMIS 2007 for Windows Version 9.2.4 computer program for existing land uses. (Appendix C). Operational emissions refer to on-road motor vehicle emissions from existing land uses. These emissions are estimated by using the default trip generation data for each land use. Area Source emissions include stationary combustion emissions of natural gas used for space and water heating, yard and landscape maintenance (assumed to occur throughout the year in Southern California), and consumer use of solvents and personal care products.

Separate emissions were computed for both summer and winter.

Table 4.2-B, Estimated Daily Operational Emissions – Existing (Summer)

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Natural Gas	1.18	15.96	11.91	0.00	0.03	0.03
Landscape	2.53	0.24	19.18	0.00	0.06	0.06
Consumer Products	11.39	–	–	–	–	–
Architectural Coatings	66.46	–	–	–	–	–
Vehicles	732.60	1,058.95	8,101.80	7.02	1,124.57	227.41
Total	**814.16**	**1,075.15**	**8,132.89**	**7.02**	**1,124.66**	**227.50**

Table 4.2-C, Estimated Daily Operational Emissions – Existing (Winter)

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Natural Gas	1.18	15.96	11.91	0.00	0.03	0.03
Hearth	0.11	1.84	0.78	0.01	0.15	0.15
Landscape	2.53	0.24	19.18	0.00	0.06	0.06
Consumer Products	11.39	–	–	–	–	–
Architectural Coatings	66.46	–	–	–	–	–
Vehicles	785.42	1,255.93	7,927.66	5.96	1,124.57	227.41
Total	**867.09**	**1,273.97**	**7,959.53**	**5.97**	**1,124.81**	**227.65**

Related Regulations

Criteria Air Pollutants

The Federal and State Ambient Air Quality Standards (AAQS) establish the context for the local air quality management plans (AQMP) and for determination of the significance of a project's contribution to local or regional pollutant concentrations. Federal and State AAQS are presented in **Table 4.2-A**. The AAQS represent the level of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness, and persons engaged in strenuous work or exercise, all referred to as "sensitive receptors." SCAQMD defines a "sensitive receptor" as a land use or facility such as schools, childcare centers, athletic facilities, playgrounds, retirement homes, and convalescent homes (SCAQMD 1993).

Both Federal and State Clean Air Acts require that each non-attainment area prepare a plan to reduce air pollution to healthful levels. The 1988 California Clean Air Act and the 1990 amendments to the Federal Clean Air Act (CAA) established new planning requirements and deadlines for attainment of the air quality standards within specified time frames which are contained in the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised, and approved over the past decade (SCAQMD 1993). The currently adopted clean air plan for the SCAB is the 1999 SIP Amendment, approved by the U.S. Environmental Protection Agency (EPA) in 2000.

The Air Quality Management Plan (AQMP) for the SCAB establishes a program of rules and regulations directed at attainment of the state and national air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. The SCAQMD adopted an updated AQMP in June 2007, which outlines the air pollution measures needed to meet federal health-based standards for particulates (PM-2.5) by 2014 and for ozone by 2023 (SCAQMD 2007). The AQMP was forwarded to the CARB and approved on September 27, 2007. It was sent to the EPA for its final approval and to be included as a revision to California's SIP on November 16, 2007.

The CARB maintains records as to the attainment status of air basins throughout the state, under both state and federal criteria. The portion of the SCAB within which the proposed project is located is designated as a non-attainment area for NO_2 under state standards, and for ozone, PM-10, and PM-2.5, under both state and federal standards.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. They include the application of water or chemical stabilizers to disturbed soils; managing haul road dust by application of water; covering all haul vehicles before transport of materials; restricting vehicle speeds on unpaved roads to 15 mph; and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, it is required to establish a vegetative ground cover on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic compounds (VOC) in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the VOC content of paints available for use during building construction.

In order to reduce natural gas and electricity consumption, building design shall comply with the energy efficiency requirements of Title 24 of the California Code of Regulations. Since natural gas use and electricity generation produce air emissions, a reduction in natural gas and electricity consumption results in a related reduction in air quality emissions.

Toxic Air Contaminants

Toxic Air Contaminants are regulated under both federal and state laws. Federally, the 1970 Amendments to the Clean Air Act included a provision to address air toxics. California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (H&SC Sections 39660, et seq.) and Part 6 Air Toxics "Hot Spots" Information and Assessment (H&SC Sections 44300, et seq.). The CARB, working in conjunction with the Office of Environmental Health Hazard Assessment (OEHHA), identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant

below a specific threshold based on its effects on health, or to the lowest concentration achievable through use of best available control technology for toxics (T-BACT). The program is administered by the CARB. Air quality control agencies, including the SCAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.

Diesel Regulations

In 1990, the State of California listed diesel exhaust as a known carcinogen under its Safe Drinking Water and Toxic Enforcement Act (Proposition 65). In 1998, the California Air Resources Board listed diesel particulate as a toxic air contaminant.

The CARB, a sub-agency of the California Environmental Protection Agency (Cal EPA), is taking the lead on addressing diesel emissions in the State of California. The first step to significantly reduce diesel emissions occurred in September 2000 when the CARB approved the "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" or Diesel Risk Reduction Plan. The two main goals of the Diesel Risk Reduction Plan are: 1) to get new diesel fueled engines to use state-of-the-art emission controls as well as low-sulfur diesel fuel and, 2) for existing diesel engines to be retrofitted with emission control features. Effects of meeting these goals set by the CARB would be reducing the health effects experienced by Californians from diesel exhaust.

Under the CARB's Diesel Risk Reduction Program, mobile diesel emissions have their own set of reduction programs, as opposed to stationary diesel sources (generators) which are addressed separately under the Reduction Plan. One of the incentive programs for mobile diesel sources is the Carl Moyer Program which is a clean engine incentive program. This program provides money in the form of grants to cover the incremental portion of the cost to purchase cleaner burning engines or retrofitting existing ones.

Other programs include a program designed to develop and implement strategies to reduce emissions from new on-road heavy-duty diesel engines. The primary method of implementing this program will be through the development of emission control regulations and test procedures for those new engines. The California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles were amended on October 17, 2007 and will reduce emission from new on-road heavy-duty diesel engines.

Strategies for reducing diesel emissions from existing on-road heavy duty engines will mainly be implemented through three sections of this program: retrofit assessment, heavy-duty testing, field support, and retrofit implementation. The CARB staff has developed regulations to reduce diesel particulate matter and other emissions from existing on-road heavy-duty diesel powered trucks and buses operating in California. These regulations were adopted by CARB on December 12, 2008 and amended December 17, 2010.[2] Starting January 1, 2012, the Statewide Truck and Bus Regulation would phase in requirements for heavier trucks to reduce particulate matter emissions with exhaust retrofit filters (PM filters) by replacing vehicles with newer vehicles that are originally equipped with PM filters. Starting January 1, 2015, the regulation would require accelerated replacements of both lighter and heavier vehicles that do not have PM filters installed. From 2020 to 2023, nearly all older vehicles would need to be upgraded to have exhaust emissions meeting 2010 model year engine emissions levels. Also adopted on December 12, 2008 and modified on December 17, 2010, was the Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Regulation[3], which will reduce GHG emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. Fuel efficiency will be improved through improvements in tractor

[2] http://www.arb.ca.gov/msprog/onrdiesel/documents/fsoverview.pdf
[3] http://www.arb.ca.gov/cc/hdghg/hdghg.htm

and trailer aerodynamics and the use of low-rolling resistance tires. The tractors and trailers subject to this regulation must either use United States Environmental Protection Agency (EPA) SmartWay (SmartWay) certified tractors and trailers, or be retrofitted with SmartWay verified technologies.

Although the CARB will hand down programs and standards by which the SCAQMD can manage their jurisdiction for diesel emissions, the above programs are not regulations. Due to interstate commerce issues, regulating diesel emissions becomes not only a state level issue, but largely a federal issue. The SCAQMD is not responsible for direct regulation of mobile sources, including diesel trucks, except for publicly-owned fleets with 15 or more vehicles. The SCAQMD becomes involved in diesel issues because they are the permitting agency for stationary sources such as diesel generators and they are the agency responsible for implementing the Air Quality Management Plan for the SCAB. Specifically, in the case of light industrial land uses, the SCAQMD does not have direct regulatory control over the diesel truck emissions traveling to and from these locations, but they do have the responsibility for implementing and managing air quality plans for the SCAB in which these facilities will be operating.

In 2000, SCAQMD established a rule which mandated that whenever a public fleet operator with 15 or more vehicles replaces or purchases new vehicles, they must be either low-emission or alternatively fueled. The validity of this rule was challenged by the Engine Manufacturer's Association. The case was heard by the United States Supreme Court on January 14, 2004 and on April 28, 2004; the Supreme Court issued an opinion that under the Clean Air Act, SCAQMD and other local jurisdictions are prohibited from adopting regulations that require private fleet owners to purchase clean-fueled vehicles. However, the court allowed the possibility that fleet rules can be applied to public fleets and may be valid for leased and used vehicles. SCAQMD's role in approval of light industrial land uses would be to provide guidance and recommendations on ways to address potential diesel emissions; but, they would not have regulatory authority over the diesel trucks using the proposed facilities.

In December 2000, the EPA announced its "Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements" (2007 Rule). This new rule required that new emission standards take effect in 2007 on new heavy duty engines and vehicles. The 2007 Rule standards are based on the use of emission control devices (much like the catalytic converters on gasoline automobiles). Coupled with the mechanical devices to control emissions which are not effective with the current high-sulfur diesel fuels on the market, the EPA also required diesel fuel to have 97 percent less sulfur content beginning in 2006.

As far as regulations, the State of California is on the forefront of making an attempt to regulate mobile-source diesel emissions. On the federal level, in December 2000, the EPA announced its "Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements" (2007 Rule). This new rule required that new emission standards take effect in 2007 on new heavy duty engines and vehicles. The 2007 Rule standards are based on the use of emission control devices (much like the catalytic converters on gasoline automobiles). Coupled with the mechanical devices to control emissions which are not effective with the current high-sulfur diesel fuels on the market, the EPA also required diesel fuel to have 97 percent less sulfur content beginning in 2006.

On February 1, 2005, a requirement limiting the idling of diesel-fueled commercial vehicles to five minutes at any location pursuant to Section 2485 of Chapter 10 within Title 13 of CCR was adopted.

Off-road diesel vehicles are also regulated under CARB for both in-use (existing) and new engines. Off-road diesel vehicles include construction equipment. There have been four sets of standards, known as tiers, implemented by CARB. Tier 1 standards began in 1996. Tier 2 and 3 were adopted in 2000 and were more stringent than the first tier. Tier 2 and 3 standards were completely phased in by 2006 and 2008, respectively. On December 9, 2004, CARB adopted the Tier 4 or fourth phase of emission standards for late model year engines. These emission standards are nearly identical to those finalized by the EPA in

May 2004. These standards will decrease PM and NO_X emissions to 90 percent below current levels, beginning in 2011.

Since most off-road vehicles today have no emission controls and can last 30 years or longer, CARB approved, on July 26, 2007, a regulation to reduce emission from existing off-road diesel vehicles used in construction and other industries. This regulation establishes emission rates targets that decline over time to accelerate turnover to newer, cleaner engines and requires exhaust retrofits to meet these targets. The regulation will affect the larger fleets first with average compliance dates in 2010; while medium and small fleet requirements will achieve compliance in 2013 and 2015, respectively. This regulation also includes the Surplus Off-Road Opt-in for NO_X (SOON) program. The local air districts may opt into the SOON program to reduce NO_X emissions beyond what is required by the regulation. Staff at SCAQMD proposed Rule 2449 which implements the SOON program. This rule was adopted at the May 2, 2008 board meeting. Opting in to this program is anticipated to achieve a 12 ton per day reduction in NO_X by 2014.

Greenhouse Gases

The Montreal Protocol on Substances That Deplete the Ozone Layer controls the phase-out of ozone depleting compounds (ODCs). Under this international agreement, several organizations report on the science of ozone depletion, implement projects to help move away from ODCs, and provide a forum for policy discussions. Many ODCs are also potent GHGs and so policies aimed at reducing their emissions also reduce emissions of GHGs. The SCAQMD supports state, federal, and international policies to reduce levels of ozone depleting gases through its Global Warming Policy and rules. Further, SCAQMD has developed ODC Replacement Guidelines to facilitate transition from ODCs to substances that are the most environmentally benign (SCAQMD 2005).

The EPA has issued regulatory actions under the Clean Air Act and in some cases other statutory authorities to address issues related to climate change[4]. Most recently, on December 7, 2009, Administrator Lisa Jackson signed a final action, under Section 202(a) of the Clean Air Act, finding that six key well-mixed greenhouse gases constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to the climate change problem.

The EPA, under the Energy Independence and Security Act of 2007, is responsible for revising and implementing regulations to ensure that gasoline sold in the United States contains a minimum volume of renewable fuel. A Notice of Proposed Rulemaking for the Renewable Fuel Standard (RFS) program was published on May 26, 2009. The RFS program will increase the volume of renewable fuel required to be blended into gasoline from 9 billion gallons in 2008 to 36 billion gallons by 2022. The new RFS program regulations are being developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

On September 15, 2009, US EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) proposed a new national program that would reduce GHG and improve fuel economy for all new cars and trucks sold in the United States. US EPA proposed the first-ever national GHG emissions standards under the Clean Air Act, and NHTSA proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This proposed national program would allow automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both Federal programs and the standards of California and other states.

In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), US EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. Signed by the Administrator on September 22, 2009, the rule requires in general that suppliers of fossil fuels and industrial GHGs,

[4] http://www.epa.gov/climatechange/initiatives/index.html, accessed January 25, 2010.

manufacturers of vehicles and engines outside of the light duty sector, and facilities that emit 25,000 MT or more of GHGs per year to submit annual reports to US EPA. The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change.

On September 30, 2009 US EPA proposed new thresholds for GHG that define when Clean Air Act permits under the New Source Review and Title V operating permits programs would be required. The proposed thresholds would tailor these permit programs to limit which facilities would be required to obtain permits and would cover nearly 70 percent of the nation's largest stationary source GHG emitters—including power plants, refineries, and cement production facilities, while shielding small businesses and farms from permitting requirements.

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest amendments were made in October 2005 and currently require new homes to use half the energy they used only a decade ago. In September 2008, changes were adopted to the Building Energy Efficiency Standards contained in the CCR, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1. The new 2008 standards went into effect January 2010. Energy efficient buildings require less electricity, and electricity production by fossil fuels results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

The California Building Standards Commission adopted the nation's first green building standards on July 17, 2008. The California Green Building Standards ("CALGreen") Code (Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR in response, amongst other reasons, to the requirements of AB 32. The CALGreen Code establishes voluntary and mandatory standards regarding planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants that became effective for all new development projects constructed after January 1, 2011.

California AB 1493 (Pavley), signed by Governor Gray Davis on July 22, 2002, requires CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB will apply to 2009 and later model year vehicles. CARB estimates that the regulation will reduce climate change emissions from light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030. The US EPA initially denied the CAA waiver required to implement AB 1493 on December 19, 2007. However, in January 2009, President Barack Obama issued a directive to the US EPA to reconsider California's request for a waiver. The EPA granted California's request for a CAA waiver on June 30, 2009.

In order to reduce GHG in California, Governor Arnold Schwarzenegger signed Executive Order S-3-05 in June 2005. This Order calls for the following GHG emission reduction targets to be established: reduce GHG emissions to 2000 levels by 2010; reduce GHG emissions to 1990 levels by 2020; and reduce GHG emissions to 80 percent below 1990 levels by 2050. It also requires biennial reports on potential climate change effects on several areas, including water resources. The Order also requires that the Secretary of the Cal EPA shall coordinate oversight of the efforts made to meet the targets with: the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission, and the President of the Public Utilities Commission.

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 directs CARB to implement regulations for a cap on sources or categories of

sources of GHG emissions. GHG as defined under AB 32 includes: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The bill requires that CARB develop regulations to reduce emissions with an enforcement mechanism to ensure that the reductions are achieved, and to disclose how it arrives at the cap. It also includes conditions to ensure that businesses and consumers are not unfairly affected by reductions.

AB 32 requirements and milestones are as follows:

- June 30, 2007 – Identification of discrete early action greenhouse gas emissions reduction measures. Three early action measures were approved by CARB on June 21, 2007. Six other discrete early action measures were subsequently approved.
- January 1, 2008 – Establish a 1990 baseline GHG emissions level and approval of a statewide limit equivalent to that level. Adoption of mandatory reporting and verification requirements concerning GHG emissions. On December 6, 2007, CARB approved a statewide limit on GHG emissions levels for the year 2020 consistent with the determined 1990 baseline.
- January 1, 2009 – Adoption of a scoping plan for achieving GHG emission reductions. On December 11, 2008, the CARB Board adopted the Climate Change Scoping Plan (Scoping Plan) at its meeting.
- January 1, 2010 – Adoption and enforcement of regulations to implement the "discrete" actions.
- January 1, 2011 – Adoption of GHG emissions limits and reduction measures by regulation.
- January 1, 2012 – GHG emissions limits and reduction measures adopted in 2011 become enforceable.

AB 32 codifies the state's goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.

Under AB 32, CARB published its Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California in October 2007. There are 44 early action measures, both regulatory and non-regulatory, and are currently underway or to be initiated by the CARB in the 2007 to 2012 timeframe. The early action measures apply to the fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, waste, fuels, cement, oil and gas, electricity, and fire suppression sectors. As noted in the milestones above, nine of the early action measures are discrete early action measures that are regulatory and enforceable by January 1, 2010. CARB estimates that the 44 recommendations have the potential to result in GHG reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the 2020 target.

As discussed in the Scoping Plan, the projected total business-as-usual emissions for year 2020 (596 MMTCO2e) must be reduced approximately 30 percent to achieve CARB's approved 2020 emission target of 427 MMTCO2e. This is approximately 15 percent reduction in today's levels. The Scoping Plan identifies recommended measures for several GHG emission sectors and the associated emission reductions to meet the 2020 emissions target. Each sector has a different emission reduction target. The majority of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements for reducing California's GHG to 1990 levels by 2020 include:

- expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- achieving a statewide renewable energy mix of 33 percent;

- developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- establishing targets for transportation-related emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

Also in September 2006, Governor Arnold Schwarzenegger signed Senate Bill (SB) 1368 which calls for the adoption of a greenhouse gas (GHG) performance standard for in-state and imported electricity generators to mitigate climate change. On January 25, 2007, the California Public Utilities Commission adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers to be with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of CO_2 per megawatt-hour.

Executive Order S-01-07 was approved by the Governor on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also requires that a Low Carbon Fuel Standard for transportation fuels be established for California, which was approved by CARB on April 23, 2009. The regulation is designed to increase the use of alternative fuels, replacing 20 percent of the fuel used by cars in California with clean alternative fuels by 2020, including electricity, biofuels, hydrogen, and other options.

The Western Regional Climate Action Initiative was signed on February 26, 2007 by five states: Washington, Oregon, Arizona, New Mexico, and California. Utah, as well as Manitoba and British Columbia, Canada joined in April 2007. Montana joined in January 2008 and Quebec moved from Observer to Partner status in April 2008 and Ontario moved from observer to partner status in July 2008. Other United States and Mexican states and Canadian provinces have joined as observers. The Initiative plans on collaborating to identify, evaluate, and implement ways to reduce GHG emissions in the states collectively and to achieve related co-benefits. The Initiative announced recommendations for the design of a regional market-based cap and trade program in September 2008 and released their document "Background Document and Progress Report for Essential Requirements of Mandatory Reporting for the Western Climate Initiative, Third Draft" on January 6, 2009. In addition, a multi-state registry will track, manage, and credit entities that reduce GHG emissions.

In August 2007, Governor Arnold Schwarzenegger signed SB 97, CEQA: Greenhouse Gas Emissions. The bill required OPR, by July 1, 2009, to prepare guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010. On June 19, 2008, OPR released an interim technical advisory for addressing climate change in CEQA documents (OPR 2008). The recommended approach is to identify and quantify project-related GHG emissions; determine its significance; and if the impact is found to be potentially significant, implement mitigation measures or alternatives that will reduce the impact below significance (OPR 2008). Further, the guidance states that the lead agency is not responsible for completely eliminating all project-related GHG emissions (OPR 2008). The approach used in this Draft EIR is consistent with the current OPR recommendations.

Pursuant to SB 97, OPR released and the Natural Resources Agency adopted State CEQA Guideline Amendments (Adopted Amendments) addressing GHG emissions on December 30, 2009. The Natural Resources Agency also released "Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97" (FSOR) providing additional explanation about the Adopted Amendments[5].The Adopted Amendments will not become effective until after the Office of Administrative Law completes its review of the Adopted Amendments and rulemaking file, and transmits the Adopted Amendments to the Secretary of State for inclusion in the California Code of Regulations.

Among other things, these Adopted Amendments require that public agencies consider GHG in any CEQA documents. The Adopted Amendments establish a new section within Appendix G, GREENHOUSE GAS EMISSIONS, with two issue questions to determine if the project would: a) generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or b) conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? However, because these Adopted Amendments were not established at the time the NOP for this project was circulated, they will not be included as separate thresholds herein. However, this section's GHG analysis discusses the subject matter of the additional Environmental Checklist Form questions included in Appendix G.

The Adopted Amendments emphasize that lead agencies have the discretion to determine appropriate significance thresholds for evaluating GHG impacts that are supported by substantial evidence in the record. According to Section 15064.4(a) of the Adopted Amendments, "The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064 [Determining the Significance of the Environmental Effects Caused by a Project]. A lead agency should make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project."

In addition, Section 15064.7(c) of the Adopted Amendments specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The Resources Agency FSOR emphasizes that the Adopted Amendments encourage lead agencies to rely on thresholds developed by other agencies with specialized expertise, and note that air districts, in particular, may provide guidance on adopting thresholds of significance (Natural Resources Agency FSOR, p. 25). Thus, the Adopted Amendments do not prescribe specific significance thresholds for use by lead agencies. Rather, they emphasize the lead agency's discretion in developing significance thresholds, and encourage lead agencies to consider thresholds by other agencies as well.

The Adopted Amendments support the use of AB 32 as a performance-based significance threshold against which to evaluate cumulative GHG impacts from a project. According to Section 15064.4(a)(2), lead agencies may rely on performance-based standards in determining a project's impacts. In addition, Section 15064.4(b)(3) of the Adopted Amendments permits consideration by the lead agency of "the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions" when assessing the significance of impacts from greenhouse gas emissions on the environment.

The Adopted Amendments also maintain the existing State *CEQA Guidelines* concept of consistency with an approved plan or mitigation program demonstrating a project's impacts are less than significant;

[5] Adopted Amendments and FSOR available at http://ceres.ca.gov/ceqa/guidelines/

however, the Adopted Amendments provide further examples of what these plans might include (State *CEQA Guidelines* Section15064(h)(3).). According to the Adopted Amendments, such a program or plan may "include[e], but [is] not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions." (*Id.*; *see also* Adopted Amendments, Appendix G, VII(b).) ("Would the project . . . [c]onflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing emissions of greenhouse gases?").

In summary, OPR and the Natural Resources Agency has attempted to make the Adopted Amendments consistent with the existing CEQA framework for environmental analysis, including but not limited to the determination of baseline conditions, determination of significance, cumulative impacts and evaluation of mitigation measures. For these reasons, OPR did not identify a threshold of significance for greenhouse gas emissions, nor did they prescribe assessment methodologies or specific mitigation measures. The Adopted Amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The Adopted Amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The approach used in this Draft EIR is to evaluate GHG impacts consistent with OPR's Adopted Amendments by addressing the checklist questions in Appendix G within the context of the Initial Study checklist questions circulated with the NOP. The City of Perris is taking a conservative approach and concluding that any general development project that is inconsistent with State or local policies adopted to reduce the amount of GHG emissions associated with new development projects (e.g., General Plan policies) and/or generates a net increase of gaseous operational criteria pollutant emissions (VOC, NO_X, and/or CO) that exceeds the daily regional thresholds of significance recommended by the SCAQMD, would also contribute a considerable amount of GHG emissions to the state-wide cumulative GHG impact.

On September 30, 2008, Governor Arnold Schwarzenegger signed SB 375 (Steinberg). SB 375 focuses on housing and transportation planning decisions to reduce fossil fuel consumption and conserve farmlands and habitat. This legislation is important to achieving AB 32 goals because greenhouse gas emissions associated with land use, which includes transportation, are the single largest source of emissions in California. SB 375 provides a path for better planning by providing incentives to locate housing developments closer to where people work and go to school, allowing them to reduce vehicle miles traveled (VMT) every year.

To achieve these goals, SB 375 will:

- Require the regional transportation plan for each of the state's major metropolitan areas to adopt a "sustainable community strategy" that will meet the region's target for reducing GHG emissions from cars and light trucks. These strategies would get people out of their cars by promoting smart growth principles such as: development near public transit; projects that include a mix of residential and commercial use; and projects that include affordable housing to help reduce new housing developments in outlying areas with cheaper land and reduce vehicle miles traveled (VMT);
- Create incentives for implementing the sustainable community strategies by allocating federal transportation funds only to projects that are consistent with the emissions reductions; and
- Provide various forms of CEQA relief by allowing projects that are shown to conform to the preferred sustainable community strategy through the local general plans (and therefore contribute to GHG reduction) to have a more streamlined environmental review process. Specifically, if a development is consistent with the sustainable community's strategy and incorporates any mitigation measures required by a prior EIR; then, the environmental review does not have to

consider: a) growth-inducing impacts, or b) project-specific or cumulative impacts from cars on global climate change or the regional transportation network. In addition, a narrowly-defined group of "transit priority projects" will be exempt from CEQA review.

On October 24, 2008, CARB released the *Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significant Thresholds for Greenhouse Gases under CEQA* recommending GHG-related significance thresholds which lead agencies can use in the significance determination pursuant to OPR's request (CARB 2008). The current recommendations are a sector-specific approach to develop threshold for project that result in a substantial portion of the state's GHG emissions. The preliminary interim thresholds are for two sectors: 1) industrial projects, and 2) residential and commercial projects. For industrial projects that do not qualify under existing CEQA statutory or categorical exemptions, CARB recommends that GHG-related impacts may be found to be insignificant if they: (1) meet interim performance standards for construction and transportation-related emissions; and (2) emit no more than 7,000 $MTCO_2E$ from non-transportation operational sources. CARB recommends that residential and commercial projects that do not qualify under existing CEQA statutory or categorical exemptions are presumed to have a less than significant impact related to climate change if: (1) construction activities meet an interim CARB performance standard for construction-related emissions; (2) operational activities: i) meet the California Energy Commission's Tier II Energy Efficiency goal; ii) meet an interim CARB performance standard for water use; iii) meet an interim CARB performance standard for waste; and iv) meet an interim CARB performance standard for transportation; and (3) the project will emit no more than a "to be determined" limit for metric tons CO_2e per year. Although the CARB 2008 Draft Guidance indicated CARB's intent to provide final guidance to OPR before OPR issued its draft State *CEQA Guidelines*, CARB did not release final guidance before OPR's April 2009 release of its Proposed State *CEQA Guidelines* or the July 2009 Natural Resources Agency Notice. Because no further guidance has been issued as of January 2010, these recommendations are not utilized in the project's analysis; they are briefly addressed here for the purpose of full disclosure.

Regionally, the SCAQMD is responsible for monitoring air quality as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal AAQS in the district. Programs developed include air quality rules and regulations that regulate stationary source emissions, including area and point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements and issuing permits for stationary sources, and ensuring that new, modified, or relocated stationary sources do not create net emissions increases. The SCAQMD enforces air quality rules and regulations through a variety of means including inspections, educational and training programs, and fines. A number of GHG are currently regulated through implementation of rules adopted by the SCAQMD, as discussed below.

Methane emissions from landfills are reduced by SCAQMD Rule 1150.1 – Control of Gaseous Emissions from Active Landfills. Methane emissions from petroleum sources are reduced by a number of rules in SCAQMD Regulation XI that control fugitive emissions from petroleum production, refining, and distribution.

SCAQMD Rule 1418 – Halon Emissions from Fire Extinguishing Equipment requires the recovery and recycling of halon used in fire extinguishing systems and prohibits the sale of halon in small fire extinguishers.

SCAQMD Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems requires CFC refrigerants to be reclaimed or recycled from stationary refrigeration and air conditioning systems. SCAQMD Rule 1405 – Control of Ethylene Oxide and Chlorofluorocarbon Emissions from Sterilization or Fumigant Processes requires recovery of reclamation of CFCs at certain commercial facilities and eliminates the use of some CFCs in the sterilization processes. Some CFCs are

classified as TACs and regulated by SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants and SCAQMD Rule 1402 Control of Toxic Air Contaminants from Existing Sources.

SCAQMD regulates TCA compound as a toxic air contaminant under Rules 1401 and 1402.

In addition to current rules and regulations which also address GHG, SCAQMD plans to provide guidance to local lead agencies on determining significance for GHG in their CEQA documents by convening a *GHG CEQA Significance Threshold Working Group* to work with SCAQMD staff on developing GHG CEQA significance thresholds. The SCAQMD began hosting monthly working group meetings in April 2008. The result of the working group meeting on October 22, 2008 was the *Draft AQMD Staff CEQA Greenhouse Gas Significance Threshold* (SCAQMD 2008a) and the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008b). The Draft Threshold is intended to be interim guidance until statewide significance thresholds or guidance are established. The proposed significance threshold is a tiered approach which allows for flexibility by establishing multiple thresholds to cover a broad range of projects.

The SCAQMD proposal in October 2008 included three tiers of compliance that may lead to a determination that impacts are less than significant, including: (1) projects with greenhouse gas emissions within budgets set out in approved regional plans, to be developed under the SB 375 process; (2) projects with greenhouse gas emissions that are below designated quantitative thresholds: (i) industrial projects with an incremental greenhouse gas emissions increase that falls below (or is mitigated to be less than) 10,000 $MTCO_2e$ /yr; or (ii) commercial and residential projects with an incremental greenhouse gas emissions increase that falls below (or is mitigated to be less than) 3,000 $MTCO_2e$ /yr, provided that such projects also meet energy efficiency and water conservation performance targets that have yet to be developed; (3) projects that purchase greenhouse gas offsets which, either alone or in combination with one of the three tiers mentioned above, achieve the target significance screening level.

On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for projects where the SCAQMD is the lead agency. Currently, the Board has only adopted thresholds relevant to industrial (stationary source) projects. To achieve a policy objective of capturing 90 percent of GHG emissions from new residential/commercial development projects and implement a "fair share" approach to reducing emission increases from each sector, SCAQMD staff has proposed combining performance standards and screening thresholds. The performance standards suggested have primarily focused on energy efficiency measures beyond Title 24 Part 6, California's building energy efficiency standards, and a screening level of 3,000 tons CO2e per year based on direct operational emissions. Above this screening level, project design features designed to reduce GHGs must be implemented to reduce the impact to below a level of significance. SCAQMD staff are performing additional analyses to further define the performance standards as well as coordinating with CARB's interim GHG proposal. At this time SCAQMD is waiting for CARB's recommendations for the residential/commercial sector. Once CARB adopts the statewide significance thresholds, staff will report back to the Board regarding any recommended changes or additions to the SCAQMD's interim threshold.[6]

Since December of 2008, the SCAQMD continued hosting the working group meetings and revised the draft threshold proposal several times although it did not officially provide these proposals in a subsequent document. The working group meeting on November 19, 2009[7] proposed two options lead agencies can select from for screening thresholds of significance for GHG emissions in residential and commercial projects. Option 1 is by land use where the numeric threshold is 3,500 tons per year of CO_2e of (tpy) for residential projects; 1,400 tpy for commercial projects; and 3,000 tpy for mixed use projects.

[6] http://www.aqmd.gov/hb/2008/December/081231a.htm
[7] http://www.aqmd.gov/ceqa/handbook/GHG/nov19mtg/nov19.html

Option 2 is a combined approach for all three land use types and is set at 3,000 tpy. Because this guidance continues to evolve, these recommendations are not utilized in the project's analysis; they are briefly addressed here for the purpose of full disclosure

City of Perris General Plan

The Conservation Element of the Perris GP contains the following goals, policies and implementation measures related to creating a sustainable community and by extension to air quality:

City of Perris GP - Conservation Element

Goal VIII	Create a vision for energy and resource conservation and the use of green building design for the City, to protect the environment, improve quality of life, and promote sustainable practices.
Policy VIII.A	Adopt and maintain development regulations that encourage water and resource conservation.
Measure VIII.A.1	Use indigenous and/or drought-resistant planting materials and efficient irrigation systems in residential projects as a means of reducing water demand, including smart irrigation systems.
Measure VIII.A.2	Use indigenous and/or drought-resistant planting and efficient irrigation systems with smart controls in all new refurbished commercial and industrial development projects. Also, restrict use of turf to 25 percent or less of the landscaped areas.
Measure VIII.A.3	Use water conserving appliances and fixtures (low-flush toilets, and low-flow shower heads and faucets) within all new residential developments.
Measure VIII.A.4	Use gray water, and water conserving appliances and fixtures within all new commercial and industrial developments.
Measure VIII.A.5	Use permeable paving materials within developments to deter water runoff and promote natural filtering of precipitation and irrigation waters.
Measure VIII.A.7	Create and maintain reclaimed water systems to provide reclaimed water for irrigation of municipal and commercial landscaping.
Measure VIII.A.8	Explore the use of private water well systems for all potable and/or landscaping water use for larger commercial and industrial projects.
Policy VIII.B	Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects.
Measure VIII.B.1	Initiate and maintain incentive programs to encourage and reward developments that employ energy and resource conservation and green building practices similar to the City's current recycling program.
Measure VIII.B.2	Require the installation of recycling bins and provide space for storage and collection of recyclables within development sites.
Measure VIII.B.3	Require the installation of recycling bins and provide space for storage and collection of recyclables within development sites.
Goal IX	Encourage project designs that support the use of alternative transportation facilities.
Policy IX.A	Encourage land uses and new development that support alternatives to the single occupant vehicle.

Measure IX.A.1	Encourage installation of shared vehicle parking and support facilities within new and refurbished commercial and industrial developments, i.e., dual fuel vehicles and charging systems on-site, car pool parking, and bus stop shelters.
Measure IX.A.2	Install bicycle paths and create secure and accessible bicycle storage for visitors and occupants within new and refurbished commercial and industrial developments.
Measure IX.A.4	Encourage building and site designs that facilitate pedestrian activity, such as locating buildings close to the street and providing direct connections to public walkways and neighboring land uses.
Measure IX.A.5	The City shall require all new public and private development to include bike and walking paths wherever feasible.
Goal X	Encourage improved energy performance standards above and beyond the California Title 24 requirements.
Policy X.A	Establish density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who exceed current Title 24 requirements for new development.
Measure X.A.2	Encourage energy conservation devices including but not limited to lighting, water heater treatments, solar energy systems, etc., for all residential projects.
Policy X.B	Encourage the use of trees within project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.
Measure X.B.1	Explore the benefits of an urban forestry program such as Tree City USA, to capitalize on the environmental, social, aesthetic, and economic benefits of trees in the urban environment.
Measure X.B.3	Provide educational materials to residents about the value of trees in the environment and encourage the planting of trees and tree care.
Policy X.C	Encourage strategic shape and placement of new structures within new commercial and industrial projects.
Measure X.C.1	Promote energy conservation by taking advantage of natural site features such as natural lighting and ventilation, sunlight, shade and topography during the site plan process.
Measure X.C.2	When possible, locate driveways and parking on the east and north sides of buildings to reduce heat buildup during hot afternoons.

Design Considerations

Design considerations refer to ways in which the proposed PVCC and its implementing development and infrastructure projects will reduce potential impacts to air quality and project-related greenhouse gas emissions.

- Incorporation of community pedestrian and bicycle trails within the project area.
- Use of designated truck routes to direct trucks away from existing communities and provide efficient truck movement.
- Installation of recycled waterlines (purple pipe) and irrigation meters by all implementing development projects to accommodate the use of recycled water when available.
- Permit Live-Work units to reduce reliance on automobiles.
- Promote green and sustainable building design, including Leadership in Energy and Environmental Design (LEED) project certification.

- Encourage site design to facilitate pedestrian activity, such as orienting building entrances towards the streets and providing connections to public walkways and neighboring land uses.
- Promote installation of shared vehicle parking at implementing development projects.
- Require secure and accessible bicycle storage located near the main entrances of buildings at all implementing development projects for which 200 or more parking spaces are required.
- Require a minimum of 50 percent shade coverage (when trees are mature) in vehicular parking areas and promote the ample and strategic use of trees at each implementing development project.
- Require employee amenities such as, but not limited to, cafeterias, exercise rooms, locker rooms and shower, walking trails and recreational facilities at all buildings exceeding 100,000 SF to encourage employees to remain on site.

Thresholds of Significance

The City of Perris has not established local CEQA significance thresholds and defers to the thresholds of significance identified in Appendix G of the State *CEQA Guidelines*. Based on Appendix G, impacts to air quality may be considered potentially significant if the project would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- expose sensitive receptors to substantial pollutant concentrations; or
- create objectionable odors affecting a substantial number of people.

In regard to Thresholds of Significance related to GHG, at the time the Initial Study/NOP was released in August 2009, neither the SCAQMD nor any other air district in California had promulgated a quantitative or qualitative significance threshold for GHG. Similarly, neither the California EPA nor the EPA has to date developed guidelines on how to prepare an impact assessment for a community's or project's GHG contribution to global climate change. However, both the SCAQMD and CARB released draft approaches for setting interim GHG significance thresholds in CEQA documents in late October 2008. Subsequently, the SCAQMD adopted, on December 5, 2008, a GHG significance threshold for industrial projects where the SCAQMD is the lead agency. Additionally, pursuant to SB 97, the Governor's Office of Planning and Research (OPR) released and the Natural Resources Agency approved amendments to the State *CEQA Guidelines* addressing GHG emissions on December 30, 2009. These approaches are all described above in the Related Regulations section. Another limitation to establishing a local threshold, based on a quantitative analysis, is that emissions models such as EMFAC and URBEMIS evaluate aggregate emissions and do not demonstrate, with respect to global impact, how much of these emissions are "new" emissions specifically attributable to the proposed project in question. In the absence of any other adopted thresholds, the City of Perris is taking a conservative approach and concluding that any general development project that is inconsistent with State or local policies adopted to reduce the amount of GHG emissions associated with new development projects (e.g., General Plan policies) and/or generates a net increase of gaseous operational criteria pollutant emissions (VOC, NO_X, and/or CO) that exceeds the daily regional thresholds of significance recommended by the SCAQMD, would also contribute a considerable amount of GHG emissions to the state-wide cumulative GHG impact.

Environmental Impacts

Threshold: *Conflict with or obstruct implementation of the applicable air quality plan.*

The AQMP for the SCAB sets forth a comprehensive program that will lead the Basin into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or employment projections.

At this time, a large portion of the proposed PVCC area is undeveloped land currently used for agriculture. The other portions contain some existing developments including warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community, and a mobile home subdivision. The surrounding area includes the City of Moreno Valley and March Air Reserve Base to the north, the community of Mead Valley, an unincorporated area of Riverside County to the west, and more developed areas of the City of Perris to the south and east.

Surrounding land uses include the following:

North: Vacant land, March Air Reserve Base and industrial uses within Moreno Valley jurisdiction

South: Industrial, residential and vacant land

East: Perris Valley Storm Channel, residential and vacant land

West: Vacant property, industrial uses, Interstate-215 and an existing rail line within Riverside County jurisdiction.

The PVCC site is located within City of Perris Planning Areas 1 and 3, and partially within Planning Areas 4 and 5 of the Perris G P. The proposed PVCC land use designations generally correspond with the current City of Perris General Plan land use designations with the following exceptions. The Community Commercial (CC) and Neighborhood Commercial (NC) have been combined into one designation – Commercial (C). Business Park (BP) and Professional Office (PO) have been combined to form one designation – Business/Professional Office (BPO). Public/Semi-Public/Utilities (P) and Park, Recreational, and Natural Open Space (OS) have been combined to Public (P).

The existing 2007 AQMP was developed based on SCAG population projections for the region. The population projections made by SCAG are based on existing and planned land uses as set forth in the various general plans of local governmental jurisdictions within the region. The proposed PVCC project proposes land uses for the project area which are very similar to the land use designations set forth in the Perris GP, with the exception of a redistribution of acreage between the land uses and the elimination of the Specific Plan (SP) acreage.

Additionally, as discussed in Section 4.10 (Transportation and Traffic) of this EIR, the existing Perris GP land uses within the proposed project's boundaries are expected to generate approximately 549,453 daily trip-ends during a typical weekday (see **Table 4.10-F**). The proposed PVCC land uses are expected to generate approximately 499,271 daily trip-ends during a typical weekday (see **Table 4.10-G**). This represents a reduction of 50,182 daily trip-ends or approximately 9.1 percent from the Perris GP land use designations for the project area.

Inasmuch as the proposed PVCC represents a redistribution of planned land uses within the project area without changing the total amount of property that is planned for future development and because the

proposed PVCC will result in a reduction in the average number of daily trips generated by planned development within the project area, it can be determined that implementation of the PVCC is generally consistent with the project site's general plan land use designation and population projections used in the development of the AQMP. Therefore, the implementation of the PVCC and its subsequent implementing development and infrastructure projects will not conflict with or obstruct implementation of the AQMP. The potential impact is considered **less than significant**.

Threshold: *Violate any air quality standard or contribute substantially to an existing or projected air quality violation.*

Air quality impacts from future implementing development and infrastructure projects within the PVCC project area can be divided into short-term and long-term impacts. Short-term impacts are usually related to construction and grading activities associated with the implementing development and infrastructure projects. Long-term impacts are those resulting from the continued operation of implementing development projects and the associated increase in vehicular trips from existing and future development. Both short-term and long-term air quality impacts can be analyzed on a regional and localized level. Regional air quality thresholds examine the effect of project emissions on the air quality of the SCAB, while localized air quality impacts examine the effect of project emissions on the neighborhood around the project site.

SCAQMD's Regional Significance Threshold (RST) Analysis

The thresholds shown in **Table 4.2-D** below are from the SCAQMD's CEQA Handbook and are the standard regional thresholds for determining significance under CEQA sanctioned by the SCAQMD. These regional significance thresholds were developed by SCAQMD based on the estimated daily emissions of a major stationary source.

Table 4.2-D, SCAQMD CEQA Regional Significance Thresholds

Emission Threshold	Units	VOC	NO_X	CO	SO_X	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operations	lbs/day	55	55	550	150	150	55

Short-Term Impacts – RST Analysis

Short-term emissions associated with construction from PVCC build-out will consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Short-term impacts will also include emissions generated during construction as a result of operation of personal vehicles by construction workers, asphalt degassing and architectural coating (painting) operations.

All implementing development and infrastructure projects within the PVCC will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, implementing development and infrastructure projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification

Form to SCAQMD. The need for a Fugitive Dust Control Plan or Large Operation Notification would be assessed at the time individual implementing development and infrastructure projects- are proposed.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the volatile organic content (VOC) in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the VOC content of paints available for use during building construction.

Implementation of the PVCC would result in new emissions being generated from construction activities and the operation of future implementing development and infrastructure projects. Because the PVCC only sets forth broad parameters for new development and does not identify specific implementing development projects, construction-related emissions of individual future implementing development projects cannot be quantified at this time. Nevertheless, a substantial amount of construction and development would occur every year until PVCC build-out. Some of the individual implementing development and infrastructure projects will be small and generate construction or operational emissions that do not exceed the SCAQMD's regional thresholds of significance. Other implementing development and infrastructure projects will be large enough to generate construction and/or operational emissions that exceed these thresholds. Other than potential implementing development and infrastructure projects that are found to be exempt from CEQA, all implementing development projects are subject to analysis for air quality impacts under SCAQMD requirements. Through the environmental review process for future implementing development projects and as required by mitigation measure **MM Air 1**, below, the City will evaluate each implementing development project to identify site-specific air quality impacts and identify mitigation measures for the implementing development projects as may be required to reduce emissions and potential impacts.

The Perris GP EIR, which is hereby incorporated herein by reference, evaluated the potential short-term air quality impacts resulting from construction within the City of Perris during a hypothetical day. The daily construction emissions during the hypothetical day are shown in **Table 4.2-E**.

Table 4.2-E, Hypothetical Daily Construction Emissions

Pollution Source	Non-Mitigated/Hypothetical			Mitigated		
	NOx	ROG	PM-10	NOx	ROG	PM-10
Daily Totals	374.53 lbs	1,554.85 lbs	443.51 lbs	293.27 lbs	600.42 lbs	230.80 lbs
SCAQMD Thresholds	100 lbs/day	75 lbs/day	150 lbs/day	100 lbs/day	75 lbs/day	150 lbs/day
Exceed SCAQMD Thresholds?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Source: Perris GP EIR, Table 4.3-4

The PVCC is expected to result in criteria pollutant emissions similar to those analyzed in the Perris GP EIR which indicated that construction-related emissions throughout the General Plan area during a hypothetical day, during which multiple development projects would be under construction concurrently, would exceed the applicable SCAQMD thresholds for NO_X, ROG, and PM-10, even with implementation of recommended mitigation measures. Although the SCAQMD regional thresholds for PM-2.5 were not developed until 2006, it is anticipated that PM-2.5 emissions would also exceed this threshold during construction. CO emissions from construction were not reported in the Perris GP EIR; however, it is reasonable to assume that emissions of CO would also exceed the SCAQMD regional thresholds. The mitigation measures contained within the Perris GP EIR are implemented through compliance with the below-listed mitigation measures.

While individual implementing development and infrastructure projects will be required to employ construction approaches that minimize criteria pollutant emissions (e.g., watering for dust control, tuning

of equipment, limiting truck idling times); over the next 20 years substantial pollutant emissions associated with construction activity will be expected to occur.

Although, **MM Air 1** requires that future implementing development projects be analyzed for their short-term impacts, it is likely that some will exceed SCAQMD thresholds after mitigation has been incorporated.

Long-Term Impacts – RST Analysis

Long-term emissions were evaluated for the year 2030 in order to determine the projected long-term emissions for proposed land uses within the PVCC project area. The long-term emissions for operational and area source emissions were estimated using the URBEMIS 2007 for Windows Version 9.2.4 computer program which uses default factors and land use assumptions from the PVCC. (Appendix C). Operational emissions refer to on-road motor vehicle emissions from PVCC build-out. These emissions are estimated by using the default trip generation data for each PVCC land use. Area Source emissions include stationary combustion emissions of natural gas used for space and water heating, yard and landscape maintenance (assumed to occur throughout the year in Southern California), and consumer use of solvents and personal care products.

Separate emissions were computed for both summer and winter.

Table 4.2-F, Estimated Daily Project Operation Emissions – PVCC (Summer)

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Natural Gas	3.33	45.15	33.70	0.00	0.08	0.08
Landscape	4.17	0.33	27.41	0.00	0.08	0.08
Consumer Products	38.42	–	–	–	–	–
Architectural Coatings	311.12	–	–	–	–	–
Vehicles	1,629.84	1,474.27	15,707.87	43.98	6,946.64	1,356.82
PVCC Buildout Total	**1,986.88**	**1,519.75**	**15,768.98**	**43.98**	**6,946.80**	**1,356.98**
Future without Project[1]	346.69	250.56	2,535.69	7.05	1,113.61	217.53
TOTAL	**1,640.19**	**1,269.19**	**13,233.29**	**36.93**	**5,833.19**	**1,139.45**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

[1] "Future without Project" represents a continuation of existing land uses (existing baseline) with no changes into the future (2030). Estimated emissions for the existing land uses are lower than those shown in Table 4.2-B, above, due to anticipated reductions in the emission levels of future vehicles.

Table 4.2-G, Estimated Daily Project Operation Emissions – PVCC (Winter)

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Natural Gas	3.33	45.15	33.70	0.00	0.08	0.08
Hearth	0.31	5.36	2.28	0.03	0.43	0.43
Landscape	4.17	0.33	27.41	0.00	0.08	0.08
Consumer Products	38.42	–	–	–	–	–
Architectural Coatings	311.12	–	–	–	–	–
Vehicles	1,755.34	1,767.06	15,051.27	37.24	6,946.64	1,356.82
PVCC Buildout Total	**2,112.69**	**1,817.90**	**15,114.66**	**37.27**	**6,947.23**	**1,357.41**
Future without Project[1]	359.39	299.10	2,422.36	5.99	1,113.76	217.68
TOTAL	**1,753.30**	**1,518.80**	**12,692.30**	**31.28**	**5,833.47**	**1,139.73**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

[1] "Future without Project" represents a continuation of existing land uses (existing baseline) with no changes into the future (2030). Estimated emissions for the existing land uses are lower than those shown in Table 4.2-C, above, due to anticipated reductions in the emission levels of future vehicles.

Implementation of mitigation measures **MM Air 10** through **MM Air 14, MM Air 18** and **MM Air 19** will serve to reduce criteria pollutant emissions.

SCAQMD's Localized Significance Threshold (LST) Analysis

As part of the SCAQMD's environmental justice program, staff at SCAQMD developed localized significance threshold (LST) methodology (SCAQMD 2008c) that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short-term and long-term). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA).

At the programmatic level, no specific implementing development projects are proposed. Therefore, a meaningful analysis of localized impacts cannot be performed at this time. However, implementation of mitigation measures **MM Air 1, MM Air 10** and **MM Air 15** below ensure that future implementing projects identify localized impacts from construction and operation as part of the environmental review process and mitigate accordingly.

CO Hot Spots

In order to ensure that the State and Federal ambient air quality standards for CO are not violated, the SCAQMD recommends that projects with a potential to generate heavy volumes of traffic, and which can lead to high levels of CO, use hot spot modeling to determine the potential to create a CO "Hot Spot". A CO "Hot Spot" is a localized concentration of CO that is above the state or federal 1-hour or 8-hour

ambient air standards. A localized high CO level is associated with traffic congestion and idling or slow-moving vehicles, which are conditions resulting from substantial traffic congestion, which are conditions associated with intersections and road segments that operate a level of service (LOS) F. Localized CO concentrations may exceed ambient standards for intersections and road segments operating at LOS F. However, as discussed in **Section 4.10 – Transportation and Traffic**, of this DEIR, all PVCC-area roadways will operate at LOS C or better at full buildout of the PVCC, with the exception of I-215 from Nuevo Road to Van Buren Boulevard, which currently operates at LOS E and F **(Table 4.10-C, Existing Average Daily Traffic and Levels of Service Within Study Area)** and is expected to operate at LOS F in the future **(Table 4.10-E Buildout Average Daily Traffic and Levels of Service Within Study Area)**. There are no sensitive receptors located within 50 feet of these segments of I-215. Therefore, implementing development projects within the PVCC are not anticipated to result in localized CO impacts along roadway segments within the study area and impacts will be less than significant in this regard.

Conclusions

Implementation of the entire PVCC Specific Plan will result in potentially significant short-term impacts related to construction and/or operational emissions . The emissions from short-term construction of the implementing development and infrastructure projects within the PVCC are anticipated to exceed the daily regional thresholds for individual projects set by SCAQMD for NO_X, ROG (VOC), CO, PM-10 and PM-2.5 and are considered to result in significant impacts after implementation of mitigation measures **MM Air 1** through **MM Air 9**.

Implementation of the entire PVCC will result in potentially significant long-term impacts related to operational emissions. However, implementation of mitigation measures **MM Air 10** through **MM Air 14** and **MM Air 18** through **MM Air 20** will reduce operational emissions at the programmatic level.

Localized impacts during construction and operation of individual projects within the PVCC will be performed on an implementing project-specific basis using the LST and CO hot spot analysis, as appropriate, during the later-tier environmental review process as set forth in mitigation measures **MM Air 1** and **MM Air 10** to identify and mitigate potential impacts.

It should be noted that the SCAQMD regional thresholds apply only to individual projects. As mentioned previously, this EIR is providing a programmatic-level analysis of the PVCC not project specific. Subsequent CEQA review will be required for future implementing development projects. The PVCC Specific Plan proposes a combination of mixed land uses including Business Park (BP), Community Commercial (CC), General Industrial (GI), Light Industrial (LI), Multi-Family Residential (MFR-14), Neighborhood Commercial (NC), Open Space (OS), Professional Office (PO), Public/SemiPublic Facility (P), Residential (R-6,000), Residential (R-20,000) and Specific Plan (SP). When analyzed separately, future implementing development projects within the PVCC may or may not individually exceed the SCAQMD thresholds.

Therefore, with mitigation, emissions will be reduced from both the construction and operation of implementing development projects within the PVCC as much as feasible. However, the resulting impacts of the overall PVCC and some individual future development projects within the PVCC area are anticipated to be significant.

Threshold: *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).*

Criteria Pollutants

The portion of the South Coast Air Basin within which the project is located is designated as a non-attainment area for NO_2 under state standards, and for ozone, PM-10, and PM-2.5 under both state and federal standards.

In evaluating the cumulative effects of the project, Section 21100(e) of *CEQA Statute* states that, "previously approved land use documents including, but not limited to, general plans, specific plans, and local coastal plans, may be used in cumulative impact analysis." In addressing cumulative effects for air quality, the AQMP utilizes approved general plans and, therefore, is the most appropriate document to use to evaluate cumulative impacts of the subject project. This is because the AQMP evaluated air quality emissions for the entire SCAB using a future development scenario based on population projections and set forth a comprehensive program that would lead the region, including the PVCC area, into compliance with all federal and state air quality standards. As described above, the emissions generated by the overall PVCC area and some individual development projects within the PVCC will exceed the SCAQMD's recommended thresholds of significance. Therefore, the cumulative impact will also be **significant**.

Greenhouse Gases (GHG)

Regarding GHG emissions, a project that shifts the location of where someone lives or works, by itself, may or may not contribute new GHG emissions. For example, someone may move from Northern California to Western Riverside County, and while this would likely increase emissions within the SCAB, it would not necessarily result in the generation of more GHG emissions globally. However, if a person moves from one location, with long commutes and a land use pattern that requires substantial energy use, to a project location that promotes shorter and fewer vehicle trips, more walking and less energy use, the new project could potentially result in a reduction in generation of global GHG emissions.

The following analysis represents an estimate of the PVCC's GHG emissions at build-out in 2030 primarily through the quantification of carbon dioxide emissions. As previously stated, carbon dioxide emissions accounted for approximately 84 percent of the state's total GHG emissions in 2004. Methane and nitrous oxide accounted for 5.7 and 6.8 percent, respectively. Therefore, while not intended to be an all-inclusive inventory of overall GHG emissions from the PVCC; the estimation of CO_2 from the most important construction- and operation-related sources is illustrative of much of the project's contribution to GHG.

It should be noted that the release of GHG in general and CO_2 specifically into the atmosphere is not of itself an adverse environmental affect. It is the affect that increased concentrations of GHG including CO_2 in the atmosphere has upon the Earth's climate (i.e., climate change) and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although air quality modeling can estimate a project's incremental contribution of CO_2 into the atmosphere, it is not feasible to determine whether or how an individual project's relatively small incremental contribution (on a global scale) might translate into physical effects on the environment. Since the Earth's climate is determined by the complex interaction of different components of the Earth and its atmosphere, it is not possible to discern whether the presence or absence of GHG emitted by the project would result in any measurable impact that would cause climate change.

The following project activities were evaluated for their contribution to global CO_2 emissions:

Short-Term Emissions:

Construction-Related Activities

The recently updated URBEMIS model calculates carbon dioxide emissions from fuel usage by construction equipment and construction-related activities, like worker trips, for a project in tons per year (one ton equals 2,000 pounds). However, as previously stated, the City has taken a conservative approach concluding that any general development project that generates a net increase of gaseous operational criteria pollutant emissions (VOC, NO_X, and/or CO) that exceeds the daily regional thresholds of significance recommended by the SCAQMD, would also contribute a considerable amount of GHG emissions to the state-wide cumulative GHG impact. Therefore, the construction-related CO_2 emissions are considered cumulative considerable based on the estimated daily construction-related emissions from PVCC build-out exceeding the SCAQMD threshold of significance for criteria pollutants.

Long-Term Emissions:

Electricity-Related Emissions

Electricity used in buildings is typically generated at an off-site power plant which indirectly generates GHG emissions. Carbon dioxide emissions from electricity generation can be estimated through different methods. The method used in this analysis takes the project's annual electricity consumption and multiplies this by the carbon intensity of electricity supplied. The electricity supplier for the project is Southern California Edison (SCE). The carbon intensity for SCE was obtained from the California Climate Action Registry's (CCAR) website. As a CCAR member, SCE voluntarily measures, verifies, and publicly reports their GHG emissions on an annual basis. Accordingly, indirect GHG emissions from electricity usage were calculated using the SCE carbon intensity factor of 630.89 pounds of carbon dioxide per megawatt-hour ($lbCO_2$ per MWh) for California operations from the most recent reporting year, 2007 (CCAR 2007). This emission factor takes into account the current mix of energy sources used to generate electricity in California for SCE and the relative carbon intensities of these sources. Details regarding the calculations are found in Appendix C.

The SCAQMD *CEQA Air Quality Handbook* provides usage rate tables to determine annual consumption of many types of land uses. The table below estimates the annual electricity consumption from both existing (2009) land uses and the PVCC land uses.

Table 4.2-H, Annual Electricity Consumption for Existing Land Uses

Project Land Use	Unit Quantity	KWh/Unit/year[1]	KWh/year
Single Family Residential	109 DU	5,626.50	613,288.50
Mobile Home Park	113 DU	5,626.50	635,794.50
High School	764,914 SF	10.50	8,031,592.80
General Office	217,256 SF	12.95	2,813,458.73
Office Park/Commercial	1,325,531 SF	12.95	17,165,623.86
Warehouse	4,211,287 SF	4.35	18,319,098.45
Light Industrial	5,417,992.80 SF	10.50	56,888,924.40
Notes: DU = dwelling units; SF = square feet		Total	107,467,781.24
[1] Electricity usage rates from SCAQMD CEQA Air Quality Handbook: Table A9-11-A		**Total MWh/year**	**104,467.78**

Multiplying the total MWh/yr from **Table 4.2-H** by the SCE California carbon intensity of 0.29 $MTCO_2$ (converted from 630.89 $lbCO_2$ per MWh) yields total CO_2 emissions for the existing land uses equal to 29,895.21 $MTCO_2$ annually.

Table 4.2-I, Annual Electricity Consumption for PVCC

Project Land Use	Unit Quantity	KWh/Unit/year[1]	KWh/year
Single Family Residential	441 DU	5,626.50	2,481,286.50
Multi-Family Residential	308 DU	5,626.50	1,732,962.00
Commercial	3,365,000 SF	13.55	45,595,750.00
Business Park/Professional Office	5,443,000 SF	12.95	70,486,850.00
General Industrial	7,998,000 SF	4.35	34,791,300.00
Light Industrial	35,989,000 SF	10.50	377,884,500.00
Notes: DU = dwelling units; SF = square feet [1] Electricity usage rates from SCAQMD CEQA Air Quality Handbook: Table A9-11-A		Total	412,675,800.00
		Total MWh/year	**412,675.80**

Multiplying the total MWh/yr from **Table 4.2-I,** by the SCE California carbon intensity of 0.29 $MTCO_2$ (converted from 630.89 $lbCO_2$ per MWh), yields total CO_2 emissions for the PVCC equal to 118,094.13 $MTCO_2$ annually. This number is conservative because it does not assume a change in average carbon intensity nor does it account for the energy efficiency measures that may be utilized by implementing development projects as part of the PVCC incentive program described under the 'Design Considerations' heading. Actual emissions due to electricity use will likely be smaller due to implementation of SB 1368 which will phase-out the use of out-of-state coal fired power plants and implementation of AB 32 which will probably reduce the carbon intensity throughout the entire state and because the project will be built to significantly exceed applicable energy efficiency standards.

A comparison of **Table 4.2-H** with **Table 4.2-I** shows that proposed project will result in an increase in the usage of electricity within the project area by an estimated 308,208.02 MWh/year; resulting in an increase in total CO_2 emissions due to electricity consumption equal to approximately 88,198.92 $MTCO_2$ annually.

Hearth Emissions

URBEMIS also calculates the annual CO_2 emission from project-related hearth emissions from proposed residential land uses. The PVCC hearth emissions are approximately 3.10 $MTCO_2$/year. This represents an increase of 2.03 $MTCO_2$/year when compared to existing land uses within the project area.

Landscape Equipment Related Emissions

Landscape equipment servicing implementing development projects within the PVCC also creates CO2 resulting from fuel combustion based on the number of single-family residential units and business units, which includes multi-family residential land uses. The current URBEMIS model calculates these emissions. The annual landscape equipment emissions from the PVCC land uses are estimated to be 7.56 MT/CO2. This will be an increase of 2.14 MTCO2/year when compared to existing land uses within the project area.

Natural Gas Related Emissions

For this analysis, GHG emissions associated with the combustion of natural gas used by the PVCC's implementing development projects are a function of natural gas usage at build-out and CO2 emissions produced when one cubic foot of natural gas is combusted. The current URBEMIS model calculates the CO2 emissions from the PVCC's annual natural gas usage in short tons based on land use. The estimated CO2 emissions from the combustion of natural gas consumed by PVCC land uses annually are approximately 9,099.04 MT/year. This represents an increase of 5,882.73 MTCO2/year when compared to existing land uses within the project area.

Vehicle Emissions

URBEMIS also calculates the annual CO_2 emission from project-related vehicle usage. The regional vehicular emissions from the PVCC are approximately 699,920.18 $MTCO_2$/year. This will be an increase of 587,791.79 $MTCO_2$/year of annual CO_2 emission over the annual CO_2 emission due to vehicle usage associated with existing land uses within the project area. Additionally, future reductions in GHG emissions from vehicular trips can be expected as a result of implementation of AB 1493 (2002), which requires emissions reductions in California's new light duty vehicle fleet. Those regulations are to be phased-in, starting in model year 2009. Staff at the CARB estimate that emissions could be reduced 27 percent by 2030.

Total Project CO_2 Emissions

As shown in Table 4.2-J, Total Annual Project-Related Operational CO2 Emissions the majority of operational project emissions for the proposed PVCC are from vehicular emissions, the consumption of electricity, and natural gas.

Not included in this estimate are emissions from the landfill or solid waste during project operation. The primary GHG of concern from landfill material is methane. Methane emissions from large landfills are separately regulated and methane gas recovery is a required element of that regulatory program. The project is subject to the County's Integrated Waste Management Plan (IWMP), which implements AB 939 and requires source reduction and recycling for all producers of waste within the County and its Cities.

The table below, while not an all-inclusive inventory of all project-related GHG, shows the estimation of CO2 from some of the most important and readily quantified project operation-related sources which are representative of the majority of the project's contribution to global GHG concentrations.

Table 4.2-J Total Annual Project-Related Operational CO_2 Emissions

Source	Annual Carbon Dioxide Emissions (MT)
Electricity	88,198.92
Natural Gas	5,882.73
Landscape Equipment	2.14
Hearth-Related Emissions	2.03
Vehicular	587,791.79
Total	**681,877.61**

It is not anticipated that a single specific plan project, even one this size, would have a measurable effect on global climate conditions. Therefore, the City of Perris is determining that the contribution of PVCC-related CO_2 emissions to the state-wide CO_2 emissions would **not be considered cumulatively considerable**.

However, to lessen the project's contribution of GHG emissions from both construction and operation, mitigation measures **MM Air 19** through **MM Air 21** will be implemented.

As previously stated, the City of Perris' approach for analyzing GHG emissions also includes consistency with State or local policies adopted to reduce the amount of GHG emissions associated with new development projects (e.g., General Plan policies). **Table 4.2-K** below shows the PVCC's consistency with applicable policies and measures of the City of Perris General Plan Conservation Element.

Table 4.2-K, Consistency with Conservation Element

Goal VIII - Sustainable Future ***Create a vision for energy and resource conservation and the use of green building design for the City, to protect the environment, improve quality of life, and promote sustainable practices.***
Policy VIII.A Adopt and maintain development regulations that encourage water and resource conservation.

Measure	PVCC's Relationship to Measure
Measure VIII.A.1 Use indigenous and/or drought-resistant planting materials and efficient irrigation systems in residential projects as a means of reducing water demand, including smart irrigation systems.	The proposed PVCC Landscape Standards and Guidelines (Section 6.0 of the PVCC Specific Plan) are based on drought tolerant plant materials in compliance with City of Perris Municipal Code Section 19.70. **Thus the PVCC is consistent with this Implementation Measure.**
Measure VIII.A.2 Use indigenous and/or drought-resistant planting and efficient irrigation systems with smart controls in all new refurbished commercial and industrial development projects. Also, restrict use of turf to 25% or less of the landscaped areas.	The proposed PVCC Landscape Standards and Guidelines (Section 6.0 of the PVCC Specific Plan) are based on drought tolerant plant materials in compliance with City of Perris Municipal Code Section 19.70. Additionally, PVCC Landscape Standards and Guidelines limit turf usage to active purposes only. **Thus, the PVCC is consistent with this Implementation Measure.**
Measure VIII.A.3 Use water conserving appliances and fixtures (low-flush toilets, and low-flow shower heads and faucets) within all new residential developments.	Applicants of future implementing development projects within the PVCC shall adhere to mitigation measure **MM Air 21,** identified below which will ensure the proposed project implements this measure. **Therefore, the PVCC is consistent with this Implementation Measure.**
Measure VIII.A.4 Use gray water, and water conserving appliances and fixtures within all new commercial and industrial developments.	The proposed PVCC includes a proposed incentive program allowing for expedited permitting for LEED building standards. LEED promotes the use of gray water. The proposed project will also comply with all regulations requiring the use of water conserving appliances and fixtures. **The PVCC is consistent with this Implementation Measure.**
Measure VIII.A.5 Use permeable paving materials within developments to deter water runoff and promote natural filtering of precipitation and irrigation waters.	The PVCC Standards and Guidelines (Section 4.2.2.7) requires future PVCC development applicants to use permeable paving materials. **The PVCC is consistent with this Implementation Measure.**

Measure	PVCC's Relationship to Measure
Measure VIII.A.7 Create and maintain reclaimed water systems to provide reclaimed water for irrigation of municipal and commercial landscaping.	Applicants of future PVCC implementing development projects shall install necessary on-site facilities so that recycled water may be used on-site once off-site infrastructure is extended to the proposed project site by others. Future PVCC development applicants may be required to make recycled water connection or construct facilities if the future project is located within one mile of existing EMWD recycled water facilities and requires more than 3,000 square feet of landscape as established in the proposed PVCC Standards and Guidelines (Section 5.4.3).**The PVCC is consistent with this Implementation Measure.**
Measure VIII.A.8 Explore the use of private water well systems for all potable and/or landscaping water use for larger commercial and industrial projects.	Implementing development projects within the PVCC will connect to water and sewer lines as is discussed in the Utilities and Service Systems section of this EIR (Section 4.11). A private water well system is not feasible for the PVCC project site. **Therefore, this Implementing Measure is not applicable to the proposed PVCC.**
Policy VIII.B Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects	Implementing development and infrastructure projects within the PVCC shall comply with the provisions of City of Perris Municipal Code Section 7.44 which promotes the recycling of construction and demolition debris which is recyclable and reusable and establishes regulations to compel applicants for "covered projects" to divert a minimum of fifty percent of their construction and demolition debris from landfills. **Therefore, the proposed PVCC is consistent with this policy.**
Measure VIII.B.1 Initiate and maintain incentive programs to encourage and reward developments that employ energy and resource conservation and green building practices similar to the City's current recycling program.	The PVCC Specific Plan includes a proposed incentive program allowing for expedited permitting implementing development projects that incorporate LEED building standards. **Therefore, the proposed PVCC complies with this measure.**
Measure VIII.B.2 Reuse, refurbish, and remodel existing public and private buildings whenever possible to conserve land and resources.	The PVCC boundaries includes some existing developments including warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community, and a mobile home subdivision. **Therefore, the PVCC is consistent with this Goal, Policy, and Measure.**

Measure	PVCC's Relationship to Measure
Measure VIII.B.3 Require the installation of recycling bins and provide space for storage and collection of recyclables within development sites.	All implementing development projects within the PVCC shall contain enclosures (or compactors) for collection of trash and recyclable materials subject to water quality and best management practices. All trash enclosures shall comply with City of Perris Standards and with applicable City of Perris recycling requirements. **Therefore, the PVCC Specific Plan is consistent with this Goal, Policy, and Measure.**

Goal IX Encourage project designs that support the use of alternative transportation facilities.

Policy or Measure	PVCC's Relationship to Policy or Measure
Policy IX.A Encourage land uses and new development that support alternatives to the single occupant vehicle.	The PVCC Standards and Guidelines encourage bus stops be provided at large commercial centers and large employment centers along existing and future bus routes. In addition, implementing development projects within the PVCC project area will comply with all applicable federal, state, regional, and local requirements including the use of shared vehicle transportation facilities, where practicable. **Therefore, the proposed PVCC complies with this policy.**
Measure IX.A.1 Encourage installation of shared vehicle parking and support facilities within new and refurbished commercial and industrial developments, i.e., dual fuel vehicles and charging systems on-site, car pool parking, and bus stop shelters.	The PVCC Standards and Guidelines encourage bus stops be provided at large commercial centers and large employment centers along existing and future bus routes. In addition, implementing development projects within the PVCC project area will comply with all applicable federal, state, regional, and local requirements including the use of shared vehicle transportation facilities, where practicable. **Therefore, the proposed PVCC complies with this Implementation Measure.**
Measure IX.A.2 Install bicycle paths and create secure and accessible bicycle storage for visitors and occupants within new and refurbished commercial and industrial developments.	The PVCC Standards and Guidelines concerning bicycle paths and storage for visitors and occupants adhere to City of Perris Municipal Code requirements. **Therefore, the proposed PVCC complies with this Implementation Measure.**
Measure IX.A.4 Encourage building and site designs that facilitate pedestrian activity, such as locating buildings close to the street and providing direct connections to public walkways and neighboring land uses.	The PVCC Standards and Guidelines encourage walkability through placement of buildings and pedestrian circulation facilities and pathways to public walks. **Therefore, the proposed PVCC complies with this Implementation Measure.**

Policy or Measure	PVCC's Relationship to Policy or Measure
Measure IX.A.5 The City shall require all new public and private development to include bike and walking paths wherever feasible.	The PVCC Standards and Guidelines require bike and walking paths where feasible in accordance with City of Perris Municipal Code requirements. **Therefore, the proposed PVCC complies with this Implementation Measure.**

Goal X Encourage improved energy performance standards above and beyond the California Title 24 requirements.

Policy or Measure	PVCC's Relationship to Policy or Measure
Policy X.A Establish density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who exceed current Title 24 requirements for new development.	The PVCC (Section 13.0 of the PVCC Specific Plan) establishes an incentive program to provide expedited processing to future development applicants who exceed current Title 24 requirements for new development. **Therefore, the proposed PVCC is consistent with this policy.**
Measure X.A.2 Encourage energy conservation devices including but not limited to lighting, water heater treatments, solar energy systems, etc., for all residential projects.	The proposed PVCC includes a proposed incentive program allowing for expedited permitting for LEED building standards which includes energy conservation measures. **Therefore, the proposed PVCC complies with this Implementation Measure.**
Policy X.B Encourage the use of trees within project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.	The PVCC establishes objectives to reduce the heat island effect and requires tree canopies to provide 50% shade coverage of parking areas. Additionally, the plant palette proposed for the PVCC includes and requires the use of drought tolerant plant material to reduce landscaping water demand. **Therefore, the proposed PVCC is consistent with this policy.**
Measure X.B.1 Explore the benefits of an urban forestry program such as Tree City USA, to capitalize on the environmental, social, aesthetic, and economic benefits of trees in the urban environment.	Although the City of Perris would be responsible for this Implementation Measure, the landscaping plan for the PVCC encourages the social, aesthetic, and economic benefit of drought-resistant landscaping in this section of Perris. **Therefore, the proposed PVCC is consistent with this Implementation Measure.**
Measure X.B.3 Provide educational materials to residents about the value of trees in the environment and encourage the planting of trees and tree care.	The residential land uses identified within the PVCC Specific Plan are existing uses. The PVCC does not include any new residential development. **Therefore, this Implementation Measure is not applicable to the proposed PVCC.**

Policy or Measure	PVCC's Relationship to Policy or Measure
Policy X.C Encourage strategic shape and placement of new structures within new commercial and industrial projects.	The PVCC provides Standards and Guidelines (Sections 7.0 and 8.0 of the PVCC Specific Plan) for new commercial and industrial projects. For aesthetic, traffic and other considerations, new structures proposed by implementing development projects are to be shaped and placed in the best strategic locations within each development site. **Therefore, the PVCC is consistent with this policy.**
Measure X.C.1 Promote energy conservation by taking advantage of natural site features such as natural lighting and ventilation, sunlight, shade and topography during the site plan process.	The PVCC includes a proposed incentive program allowing for expedited permitting for implementing development projects that incorporate LEED building standards, which promotes such energy conservation features. **Therefore, the proposed PVCC complies with this measure.**
Measure X.C.2 When possible, locate driveways and parking on the east and north sides of buildings to reduce heat buildup during hot afternoons	Future implementing development projects within the PVCC will be required to meet PVCC Standards and Guidelines as set forth in the PVCC Specific Plan in addition to City of Perris Municipal Code requirements. **Therefore, the proposed PVCC complies with this measure.**

In the absence of specific GHG reduction plans, policies, or regulations from the City of Perris, and until a City Climate Action Plan is developed and formalized, the proposed PVCC has been compared to, and determined to be consistent with, the applicable statewide strategies identified by the CARB Scoping Plan. The CARB Scoping Plan calls for a reduction in California's GHG emissions of approximately 30 percent from business-as-usual emission levels projected for 2020, or approximately 10 percent from today's levels (Scoping Plan p. 12).

The PVCC's consistency with the applicable measures in the CARB Scoping Plan is shown in **Table 4.2-L**. Most of the reduction measures are not applicable to the PVCC and were not listed. The PVCC is consistent with the feasible measures. Examples of inapplicable measures include the California Cap-and-Trade Program, Industrial Emissions, High-Speed Rail, and Sustainable Forests.

Table 4.2-L, Scoping Plan Measure Project Comparison

Scoping Plan Measures to Reduce Greenhouse Gas Emissions	PVCC Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. These are CARB enforced standards; vehicles that access implementing development project within the PVCC that are required to comply with the standards will comply with the strategy

Scoping Plan Measures to Reduce Greenhouse Gas Emissions	PVCC Compliance with Measure
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The implementing development projects within the PVCC will be compliant with the current Title 24 standards.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. These are CARB enforced standards; vehicles that will access the implementing development projects within the PVCC that are required to comply with the standards will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that will access the implementing development projects within the PVCC that are required to comply with the standards will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that will access the implementing development projects within the PVCC that are required to comply with the standards will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that will become mandatory in the 2010 edition of the Code (January 2011), on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. Implementing development projects within the PVCC will be subject to these mandatory standards.
High Global Warming Potential Gases –Adopt measures to reduce high global warming potential gases.	Consistent. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access implementing development projects within the PVCC that are required to comply with the measures will comply with the strategy.

Scoping Plan Measures to Reduce Greenhouse Gas Emissions	PVCC Compliance with Measure
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The state is currently developing a regulation to reduce methane emissions from municipal solid waste landfills All implementing development projects within the PVCC shall contain enclosures (or compactors) for collection of trash and recyclable materials subject to water quality and best management practices. All trash enclosures shall comply with City of Perris Standards and with applicable City of Perris recycling requirements. The project will be required to comply with City programs for recycling and waste reduction which comply with the 50 percent reduction required in AB 939.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. Applicants and/or developers of future implementing development projects within the PVCC shall install necessary on-site facilities so that recycled water may be used on-site once off-site infrastructure is extended to the proposed project site by others. Applicants and/or developers of future implementing development projects within the PVCC may be required to make recycled water connection or construct facilities if such implementing development project is located within one mile of existing EMWD recycled water facilities and requires more than 3,000 square feet of landscape as established in the proposed PVCC Standards and Guidelines (Section 5.4.3).
Source: Scoping Plan	

Based on the analysis presented above, the proposed PVCC would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs; therefore, impacts are considered **less than significant without mitigation**.

Threshold: *Expose sensitive receptors to substantial pollutant concentrations.*

Sensitive receptors considered include residential uses, school playgrounds, child care facilities, athletic facilities, hospitals, retirement homes, and convalescent homes. Sensitive receptors within and adjacent to the PVCC area include the Val Verde High School located at 972 West Morgan Street and scattered existing and future residential land uses.

As mentioned previously, the MATES-III study showed that areas with the maximum simulated risk were located in proximity to the Ports of Los Angeles and Long Beach. Areas with the highest risk outside of the port area extend from central Los Angeles southeast along the Interstate 5 corridor. Other elevated areas include the eastern Basin near the communities of Colton and Inland Valley San Bernardino. As with the MATES II analysis, areas projected to have higher risk followed transportation corridors, including freeways and railways. Los Angeles County bears the greatest average risk at 951 per one million person population. Orange County has the second highest number of projected risk at 781 per one million person population. Risk in the Eastern Basin is lower. The estimated risk for San Bernardino is 712 per million, and Riverside was estimated to have the lowest population-weighted risk at 485. It should be noted that these are county-wide averages, and individual communities could have higher risks than the average if they are near emissions sources, such as rail yards or intermodal facilities.

Key findings in the MATES-III study showed that there are several uncertainties in estimating air toxics risks. These include uncertainties in the cancer potencies of the substances, in the estimates of population exposure, and uncertainty in estimating the level of diesel particulate. Although there are uncertainties in the ambient estimates, diesel particulate continues to be the dominant toxic air pollutant based on cancer risk. This finding holds up regardless of methodology used. The study findings therefore clearly call for a step-up in reducing diesel emissions as early as practicable and as aggressively as feasible. Goods movement is a significant source of diesel emissions. With the projected future growth in goods movement, diesel emissions may increase. The interplay between (a) the increase in goods movement and (b) projected emission reduction strategies will be crucial in determining whether diesel exposures are reduced in the future. (MATES-III)

The MATES-III study shows that the area surrounding the project site has a modeled background cancer risk ranging from approximately 407 to 566 cases of cancer per one million people. The SCAQMD has determined that cancer risks are significant if an individual project generates a greater than or equal to 10 excess cancer cases per one million people. At the programmatic level, there are no specific implementing development projects proposed or truck trip data available. Therefore, a meaningful analysis of health risk impacts cannot be performed at this time and any analysis would be, at best, speculative. However, implementation of mitigation measures **MM Air 11** to **MM Air 13** and **MM Air 15** to **MM Air 17** below ensure that future implementing development projects identify health risk impacts from operation as part of the environmental review process and mitigate accordingly. The SCAQMD threshold of 10 in one million would only apply to each individual implementing industrial development and would not apply cumulatively. The table below provides a summary of industrial projects and the highest cancer risk both within the boundaries of the PVCC and its vicinity.

Table 4.2-M, Comparison of Health Risk of Industrial Projects Within PVCC Vicinity

Project	Size (Million Square Feet)	Highest Cancer Risk (per Million)*
Markham Business Center	1.75	2.1
Oakmont II	1.60	6.4
Perris Ridge Commerce Center	1.91	4.6
Perris Ridge Commerce Center	2.0	.3.0
Rados Distribution Center	1.2	2.1
South Perris Industrial	7.4	9.87
* Reflects either mitigated or unmitigated scenarios (depending on whether mitigation was required).		

As is shown by **Table 4.2-M**, above, each industrial project is below the SCAQMD health risk threshold of 10 in one million it is unlikely that future industrial warehouse projects within the PVCC would individually create a significant amount of health risk. Since the health risk thresholds apply to individual development projects and at present there is no cumulative health risk threshold, attempting to reach a conclusion as to whether implementation of the PVCC Specific Plan would result in a cumulative health risk would be speculative.

The Perris GP EIR, which is hereby incorporated herein by reference, determined that the majority of construction-related emissions "would be concentrated at construction sites and would be dispersed along truck routes leading into and out of construction sites. These emissions would further dissipate and be

diluted by the atmosphere downwind of the emission sources. Considering the dispersion of the short-term emissions, the [Perris GP] will not expose sensitive receptors to substantial pollutant concentrations." (Perris GP EIR, pps. IV-30 & IV-31)

The Perris GP EIR also determined that "[r]eview of individual industrial land use proposals will be necessary to ensure that those proposals involving activities that generate significant levels air pollutants are carefully designed and regulated to ensure that such emissions are reduced to less than significant levels and not concentrated near sensitive receptors. Vehicular emissions can also be concentrated near sensitive receptors, primarily where there is a significant level of congestion that slows the flow of traffic and allows for buildup of emissions in a localized area, particularly at busy intersections. The General Plan 2030 Circulation Element is intended to develop a street network and intersection improvements that will avoid serious congestion and maintain a smooth flow of traffic. This will also minimize concentrations of pollutants in vehicle exhausts that could collect near sensitive receptors located along roadways and intersections. Regular assessment of the air quality impact of new development projects along with transportation improvements will be necessary to monitor air pollutant levels near sensitive receptors and to determine whether such projects and improvements could increase pollutant levels" and that if "pollutant levels are increased, measures shall be identified to avoid significant increases that could violate State or Federal air quality standards." (Perris GP EIR, p. IV-31) The Perris GP EIR concluded that adoption and implementation of the Perris GP does not expose sensitive receptors to substantial pollutant concentrations. The mitigation measures contained within the Perris GP EIR are implemented through compliance with the below-listed mitigation measures.

Short-term impacts associated with construction from PVCC build-out will result in increased criteria pollutant emissions from grading, earthmoving, and construction activities. Because the PVCC only sets forth broad parameters for new development and does not identify specific implementing development projects, construction-related emissions of individual future developments cannot be quantified at this time. Construction activity is assumed to be a constant throughout the PVCC. Nevertheless, it is expected that construction-related emissions would be dispersed along truck routes leading into and out of construction sites and further dissipated and diluted by the atmosphere downwind of the emission sources. Considering the dispersion of the short-term emissions, the implementation of the proposed PVCC will not expose sensitive receptors to substantial pollutant concentrations during project construction. Additionally, mitigation measure **MM Air 1** requires that as part of the CEQA process future implementing development projects be analyzed for their short-term impacts.

Similarly, long-term impacts associated with operation from PVCC build-out will result in criteria pollutant emissions from both mobile (vehicle usage) and area sources. Mitigation measures **MM Air 10 and MM Air 15** require that as part of the CEQA process future development projects be analyzed for their long-term impacts**.** Mitigation measures **MM Air 16** and **MM Air 17** will serve to further protect sensitive receptors by ensuring no future sensitive land uses are developed within close proximity to sources of substantial pollutant concentrations.

Inasmuch as implementation of the proposed PVCC will not expose sensitive receptors to substantial pollutant concentrations during project construction and implementation of the below-listed mitigation measures will prevent the exposure of sensitive receptors to substantial pollutant concentrations related to long-term air quality impacts associated with build out of the proposed PVCC, the proposed project will have **less than significant impacts** related to the exposure of sensitive receptors to substantial pollutant concentrations.

Threshold: *Create objectionable odors affecting a substantial number of people.*

Odor sensation is a personal response. Not all people are equally sensitive, and they do not always agree about the severity of an odor once it is detected. The human nose is still the best means of determining the strength of an odor. Precise documentation of the strength and nature of an odor is generally unavailable because of the large number of gases involved and their effects on each other. Additionally, odor measurement is difficult because no instrument has been found to successfully measure odor and all its components. According to the CARB Air Quality and Landuse Handbook, some common sources of odor complaints include sewage treatment plants, landfills, recycling facilities, and petroleum refineries (CARB 2005).

It is anticipated that the major potential sources of odor from the project would occur during construction. Construction equipment exhaust would be the main source of odors that could occur in the immediate vicinity of individual implementing development projects. Odors generated during construction will be short-term and not result in a long-term odorous impact to the surrounding area.

Odor intensity decreases as distance from the source increases. Distance allows fresh air to mix with the odors, resulting in decreased odor intensity. Due to wind direction, the sensitive receptors to the east and northeast will be the most impacted. Studies have shown that the typical person spends approximately 87 percent of their time indoors, 5 percent of their time outdoors, and 7 percent of their time in vehicles. (Cackette/Lloyd) The quantity of time that people spend indoors also substantially reduces their exposure to potential odors.

Recognizing the short-term duration and quantity of emissions in the project area and the limited outdoor exposure of persons to outdoor odors, the project will not expose substantial numbers of people to objectionable odors. Impacts from short-term construction odors will not affect a substantial amount of people and are considered less than significant.

Since the project includes light industrial and commercial land uses, the trucks utilizing the project area may emit odors during operation in the form of diesel exhaust; however, the PVCC standards and guidelines call for a 50-foot setback between commercial developments and residential property lines. The City of Perris has adopted specific truck routes throughout the PVCC area in an effort to separate passenger and truck traffic and move truck traffic efficiently through the project area while avoiding residential communities as much as possible. The following truck routes, shown on Figure CE-9 of the Perris GP Circulation Element, are located within the PVCC project area:

- **Ramona Expressway** within the entire Specific Plan boundary;
- **Harley Knox Boulevard** from Redlands Avenue to I-215;
- **Placentia Avenue** from Perris Boulevard to Interstate-215;
- **Perris Boulevard** within the entire Specific Plan boundary;
- **Morgan Street** from Frontage Road to Redlands Avenue;
- **Rider Street** from Frontage Road to Perris Boulevard;
- **Western Way** from Harley Knox to northerly City limit Specific Plan Boundary;
- **Indian Avenue** from Placentia Avenue to Harley Knox Boulevard;
- **Redlands Avenue** from Rider Street to Harley Knox Boulevard.

There are new programs from the EPA related to diesel fuel contents that are intended to reduce the amount of odor from diesel exhaust from new engines starting in 2007. The Clean Air Nonroad Diesel Rule (signed by President Bush on May 11, 2004) placed new pollution controls on diesel engines used in industries such as construction and is expected to ultimately reduce emissions from nonroad diesel engines by over 90 percent. By 2010 this rule will reduce sulfur levels in nonroad diesel fuel 99 percent from 2004

levels. This rule built upon the previously adopted Clean Diesel Truck and Bus Rule (announced December 21, 2000), which required a 97 percent reduction in sulfur content of highway diesel fuel and required new heavy-duty diesel highway vehicles to meet new emission standards. On-highway compliance requirements take effect with the 2007 model year. It is estimated that by 2030 when the current heavy-duty highway vehicle fleet has been completely replaced by newer vehicles, that emissions from such vehicles will be reduced by over 90 percent. Additionally, the implementing development projects within the PVCC will comply with SCAQMD Rule 402. Rule 402 prohibits the discharge of air contaminants or other material which may cause the detriment, nuisance, or annoyance to any considerable number of people. Also, there are regulations from the CARB related to diesel fuel contents that are intended to reduce the amount of odor from diesel exhaust. These rules and regulations, along with **MM Air 4, MM Air 6 and MM Air 11 and MM Air 12** below which limit idling time and promote alternative fueled trucks, will help to reduce operational impacts related to odors from the project to less than significant levels.

Therefore, construction and operation of implementing development and infrastructure projects within consistent with the PVCC will not create objectionable odors affecting a substantial number of people and the impact is considered **less than significant.**

Proposed Mitigation Measures

An EIR is required to describe feasible mitigation measures which could minimize significant adverse impacts (State CEQA Guidelines, Section 15126.4). Mitigation measures were evaluated for their ability to reduce or eliminate impacts.

The following mitigation measures shall be implemented to reduce emissions (criteria pollutant, GHG, and DPM) for construction activities at development sites within the PVCC:

MM Air 1: To identify potential implementing development project-specific impacts resulting from construction activities, proposed development projects that are subject to CEQA shall have construction-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined in conjunction with the SCAQMD. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 2: Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air 3: To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air 4: Building and grading permits shall include a restriction that limits idling of construction equipment on site to no more than five minutes.

MM Air 5: Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air 6: The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the CARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available CARB verified or US EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air 7: During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air 8: Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

MM Air 9: To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g. bathroom stall

dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

In order to reduce emissions (criteria pollutant, GHG, and DPM) from project operation, the following mitigation measures shall be implemented by new implementing development projects within the PVCC:

MM Air 10: To identify potential implementing development project-specific impacts resulting from operational activities, proposed development projects that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available URBEMIS model, or other analytical method determined by the City of Perris as lead agency in conjunction with the SCAQMD. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold analysis, CO Hot Spot analysis, or other appropriate analyses as determined by the City of Perris in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

MM Air 11: Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of five minutes.

MM Air 12: Where transport refrigeration units (TRUs) are in use, electrical hookups will be installed at all loading and unloading stalls in order to allow TRUs with electric standby capabilities to use them.

MM Air 13: In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest of each implementing development project shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other state programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles.

MM Air 14: Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits.

MM Air 15: To identify potential implementing development project-specific impacts resulting from the use of diesel trucks, proposed implementing development projects that include an excess of 10 dock doors for a single building, a minimum of 100 truck trips per day, 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, and that are subject to CEQA and are located adjacent to sensitive land uses; shall have a facility-specific Health Risk Assessment performed to assess the diesel particulate matter impacts from mobile-source traffic generated by that implementing development project. The results of the Health Risk Assessment shall be included in the CEQA documentation for each implementing development project.

MM Air 16: New sensitive land uses such as a hospital, medical offices, day care facilities, and fire stations to be located within the PVCC shall not be located closer than 500 feet to the I-215 freeway, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. If new sensitive land uses cannot meet this setback, they will be designed and conditioned to include mechanical ventilation systems with fresh air filtration. For operable windows or other sources of ambient air filtration,

installation of a central HVAC (heating, ventilation, and air conditioning) system that includes high efficiency filters for particulates (MERV-13 or higher) or other similarly effective systems shall required.

MM Air 17: New sensitive land uses such as residential, a hospital, medical offices, day care facilities, and fire stations shall not be located closer than 1,000 feet from any existing or proposed distribution center/warehouse facility which generates a minimum of 100 truck trips per day, or 40 truck trips with TRUs per day, or TRU operations exceeding 300 hours per week, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. If new sensitive land uses cannot meet this setback, they will be designed and conditioned to include mechanical ventilation systems with fresh air filtration. For operable windows or other sources of ambient air filtration, installation of a central HVAC (heating, ventilation, and air conditioning) system that includes high efficiency filters for particulates (MERV-13 or higher) or other similarly effective systems shall required.

MM Air 18: Prior to the approval of each implementing development project, the Riverside Transit Agency (RTA) shall be contacted to determine if the RTA has plans for the future provision of bus routing within any street that is adjacent to the implementing development project that would require bus stops at the project access points. If the RTA has future plans for the establishment of a bus route that will serve the implementing development project, road improvements adjacent to the project site shall be designed to accommodate future bus turnouts at locations established through consultation with the RTA. RTA shall be responsible for the construction and maintenance of the bus stop facilities. The area set aside for bus turnouts shall conform to RTA design standards, including the design of the contact between sidewalks and curb and gutter at bus stops and the use of ADA-compliant paths to the major building entrances in the project.

MM Air 19: In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air 20: Each implementing development project shall implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

MM Air 21: Each implementing development project shall implement, at a minimum, use of water conserving appliances and fixtures (low-flush toilets, and low-flow shower heads and faucets) within all new residential developments.

Summary of Environmental Effects After Mitigation Measures Are Implemented

Inasmuch as the PVCC represents a redistribution of planned land uses within the project area, without changing the total amount of property that is planned for future development and because the proposed PVCC will result in a reduction in the average number of daily trips generated by planned development within the project area, it can be determined that the proposed project is generally consistent with the project site's general plan land use designation and population projections used in the AQMP. Therefore, implementation of the PVCC will not conflict with or obstruct implementation of the AQMP. The potential impact is considered **less than significant without any mitigation required.**

The project's construction and operation will not create objectionable odors affecting a substantial number of people and the impact is considered **less than significant without mitigation required.** However,

mitigation measures **MM Air 4, MM Air 11,** and **MM Air 12** will have an added benefit of reducing project-generated odors by limiting idling times for diesel-fueled vehicles.

For short-term emissions associated with construction of the project, the mitigation measures listed above (**MM Air 2** through **MM 9**) do not have a quantified amount of reduction in emissions of criteria pollutants associated with them in URBEMIS 2007; therefore, to be conservative, there is no change in the estimated construction emissions from these mitigation measures. Thus, regional short-term emissions for criteria pollutants will exceed SCAQMD thresholds during construction. Implementation of **MM Air 1** above will require individual implementing development projects to evaluate short-term localized impacts as part of the environmental review process and mitigate accordingly. Short-term construction impacts are **considered significant after incorporation of mitigation measures**.

For long-term emissions associated with operation of implementing development projects within the PVCC, the mitigation measures listed above (**MM Air 11** through **14**) reduce emissions from diesel-fueled vehicles and equipment and idling duration which reduce criteria pollutant emissions and aim to reduce sensitive receptor exposure to diesel emissions. Mitigation measure **MM Air 18** aims to reduce vehicle trips by including bus stops to encourage public transportation. Mitigation measure **MM Air 19** reduces energy usage from street lights. Mitigation measure **MM Air 21** reduces indoor water usage from residential development. Although implementation of mitigation measures **MM Air 4,** and **MM Air 6** through **19** will reduce project-generated emissions, there are no distinct quantitative reductions associated with them in URBEMIS 2007; therefore to be conservative, there is no change in the estimated emissions of the PVCC from those mitigation measures. However, implementation of **MM Air 20** which aims to reduce CO_2 and other GHG emissions through energy efficiency and conservation has an added benefit of reducing criteria pollutant emissions from project-generated natural gas usage. **MM Air 20** will require each implementing development project to increase energy efficiency 15 percent beyond Title 24 and can be quantified in URBEMIS 2007. The majority of operational emissions are from mobile sources (cars and trucks) as is shown in the following tables of mitigated project-generated operational emissions for the proposed PVCC land uses.

Table 4.2-N, Mitigated Estimated Daily Project Operation Emissions – PVCC (Summer)

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Natural Gas	2.83	38.38	28.64	0.00	0.07	0.07
Landscape	4.17	0.33	27.41	0.00	0.08	0.08
Consumer Products	38.42	–	–	–	–	–
Architectural Coatings	311.12	–	–	–	–	–
Vehicles	1,629.84	1,474.27	15,707.87	43.98	6,946.64	1,356.82
PVCC Buildout Total	**1,986.38**	**1,512.98**	**15,763.92**	**43.98**	**6,946.79**	**1,356.97**
Future without Project[1]	346.69	250.56	2,535.69	7.05	1,113.61	217.53
TOTAL	**1,639.69**	**1,262.42**	**13,228.23**	**36.93**	**5,833.18**	**1,139.44**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

[1] "Future without Project" represents a continuation of existing land uses (existing baseline) with no changes into the future (2030). Estimated emissions for the existing land uses are lower than those shown in **Table 4.2-B**, above, due to anticipated reductions in the emission levels of future vehicles.

Table 4.2-O, Mitigated Estimated Daily Project Operation Emissions – PVCC (Winter)

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Natural Gas	2.83	38.38	28.64	0.00	0.07	0.07
Hearth	0.31	5.36	2.28	0.03	0.43	0.43
Landscape	4.17	0.33	27.41	0.00	0.08	0.08
Consumer Products	38.42	–	–	–	–	–
Architectural Coatings	311.12	–	–	–	–	–
Vehicles	1,755.34	1,767.06	15,051.27	37.24	6,946.64	1,356.82
PVCC Buildout Total	**2,112.19**	**1,811.13**	**15,109.60**	**37.27**	**6,947.22**	**1,357.40**
Future without Project[1]	359.39	299.10	2,422.36	5.99	1,113.76	217.68
TOTAL	**1,752.50**	**1,512.03**	**12,687.24**	**31.28**	**5,833.46**	**1,139.72**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

[1] "Future without Project" represents a continuation of existing land uses (existing baseline) with no changes into the future (2030). Estimated emissions for the existing land uses are lower than those shown in **Table 4.2-C**, above, due to anticipated reductions in the emission levels of future vehicles.

Implementation of mitigation measures **MM Air 10** and **MM Air 15** will require individual implementing development projects to evaluate long-term localized impacts as part of the environmental review process and mitigate accordingly.

Greenhouse Gases (GHG)

Mitigation measures **MM Air 2** through **MM Air 6** will also reduce construction-related CO_2 emissions. However, there is no quantitative reduction associated with them.

For long-term GHG emissions associated with operation of the project, mitigation measures **MM Air 11 through MM Air 14** and **MM Air 21** were considered to further reduce project-generated GHG emissions and are mainly associated with energy efficiency and conservation.

Although implementation of mitigation measure **MM Air 19** will reduce energy consumption from street lights, there is no distinct quantitative reduction associated with it in URBEMIS 2007; therefore to be conservative, there is no change in the estimated emissions of the project from this mitigation measure.

Mitigation measure **MM Air 20** was considered in an effort to quantify emissions reductions related specifically to building energy performance and efficiency beyond Title 24. **MM Air 20** ensures that each of the implementing project's development energy efficiency exceeds Title 24 by 15 percent, which is quantifiable in URBEMIS 2007 and corresponds to a reduction in natural gas usage. Electricity usage was also reduced by 15 percent. Results are shown in **Table 4.2-P**, below.

Table 4.2-P, Annual Project-Related Operational CO_2 Emissions (Mitigated)

Source	Annual Carbon Dioxide Emissions (MT)
Electricity	74,969.08
Natural Gas	5,000.32
Landscape Equipment	2.14
Hearth-Related Emissions	2.03
Vehicular	587,791.79
Total	**667,765.36**

As seen in the table above, project mitigation will reduce the intensity of the overall project-related CO_2 emissions as compared to **Table 4.2-J** by approximately 2.1 percent. The PVCC was also found to be consistent with the General Plan policies identified in the Conservation Element that could reduce GHG emissions, as shown in **Table 4.2-K.**

4.3 Biological Resources

The focus of the following discussion and analysis is related to the project's potential impacts on wildlife movement, riparian habitat, wetlands, and local policies; potential adverse impacts related to endangered or threatened species, sensitive or special status species from implementation of the proposed project. Additionally, the project's potential impact on the relationship of the project to an adopted or approved local, regional, or state conservation plan will be discussed.

In response to the NOP, comment letters were received from the Department of the Air Force (DOAF) and California Department of Fish and Game (CDFG). The DOAF requested that the EIR discuss the potential of proposed retention basin to attract waterfowl which will increase the potential for aircraft accidents. The CDFG requests the EIR identify whether or not the proposed project EIR is a complete environmental analysis where future projects will not be subject to environmental review and assess cumulative impacts to the burrowing owl at the project DEIR stage and not on a project-by-project basis. The CDFG further requests alternative analysis focusing on environmental resources, a discussion and determination of jurisdictional waters, as well as protection of species associated with riparian/riverine areas and vernal pools and impacts on sensitive flora and fauna resources. This EIR is programmatic and not project specific, and many of the specific requests by CDFG and the DOAF do not pertain to this level of analysis. Further analysis will be required as specific development projects are proposed through Mitigation Measures that address concerns by these departments, which have been incorporated into this section of the EIR.

In addition to other documents, the following references were used in the preparation of this section of the Draft EIR:

- City of Perris, *City of Perris General Plan, Conservation Element,* July 12, 2005. (Available at http://www.cityofperris.org/city-hall/general-plan/Conservation_Element_01-08-09.pdf, accessed June 3, 2011.) (Perris GP Conservation Element)
- County of Riverside, *Western Riverside County Multiple Species Habitat Conservation Plan*, Adopted June 17, 2003. (Available at http://www.wrc-rca.org/library.asp#id190, accessed June 2, 2011.) (MSHCP)
- Glenn Lukos Associates, *Habitat Assessment for the Perris Commerce Center Specific Plan, City of Perris, Western Riverside County, California.* November 19, 2008. (Available as Appendix B.)
- Hogle-Ireland, Inc., *Draft Environmental Impact Report, City of Perris General Plan 2030,* October 2004. (Available at http://www.cityofperris.org/city-hall/general-plan/General_Plan_2030.pdf, accessed June 3, 2011.) (Perris GP EIR)

The following discussion is a summary of the *Habitat Assessment for the Perris Commerce Center Specific Plan, City of Perris, Western Riverside County, California. ("*Habitat Assessment*")* prepared for the proposed project by Glenn Lukos Associates, Inc., November 19, 2008. Glenn Lukos Associates (GLA) conducted general biological surveys and habitat assessments for special-status plants and wildlife for those properties within the project area. As access was limited, assessments were limited to roadside surveys.

Setting

At this time, a large portion of the proposed PVCC project area is undeveloped land currently used for agriculture. The other portions contain some existing developments including warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community, and a mobile home subdivision. The surrounding area includes the City of Moreno Valley and March Air

Reserve Base to the north, the unincorporated community of Mead Valley to the west, and more developed areas of the City of Perris to the south and east.

The PVCC is within the boundaries of the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). As further discussed in the "Related Regulations" subsection of this section of the DEIR, the MSHCP is intended to ensure long-term survival of 146 species of plants and animals through creation of a network of permanent open space to conserve a variety, of natural communities. To this end, the compliance with the provisions of the MSHCP requires the preparation of habitat assessments for certain species and requires projects to demonstrate compliance with certain provisions contained therein.

Vegetation

General assessments of the overall PVCC area were conducted by GLA biologists on August 10, 2007. General mapping of the vegetation and land use types was conducted for the PVCC project area. Due to limited access (private property) a detailed vegetation mapping was not conducted for individual properties within the PVCC project area. **Table 4.3-A, Vegetation/Land Use Types for the PVCC,** provides a summary of vegetation/land use types mapped for the site.

Table 4.3-A, Vegetation/Land Use Types for the PVCC

Vegetation/Land Use Type	Area (Acres)
Active Agriculture	549.23
Developed	1,252.89
Disced	824.09
Ornamental	9.18
Riparian	17.16
Ruderal	683.73
Water Basin	10.47
Total Acreage	**3,347.0**

Special Status Plants

Approximately 630 acres of the eastern portion of the PVCC area is located within the Narrow Endemic Plant Species Survey Area (NEPSSA) and Criteria Area Plant Species Survey Area (CAPSSA) Number 3a, as described in the MSHCP. Although the PVCC is not located within the MSHCP Criteria Area, CAPSSA Number 3a is a special survey area that extends beyond the limits of the Criteria Area (see **Figure 4.3-1, Narrow Endemic and Criteria Area Plant Species Survey Area Number 3a**) and the CAPSSA survey area includes the following target species: San Jacinto Valley crownscale (*Atriplex coronata var. notatior*), Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana var. davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), smooth tarplant (*Centromadia pungens ssp. laevis*), round-leaved filaree (*Erodium macrophyllum*), Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*), little mousetail (*Myosurus minimus*), and mud nama (*Nama stenocarpum*). Some of the target species, such as smooth tarplant *Centromadia pungens ssp. laevis*) and Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) have a moderate potential for occurrence in portions of the PVCC project area. NEPSSA Number 3a includes the following target species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California orcutt's grass (*Orcuttia californica)*, and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Based on the generally disturbed nature of the PVCC, lack of specific habitat types, and/or lack of suitable soils, many of the target species are not expected to occur. **Table 4.3-B, Special Status Plants,** show the potential for occurrence of sensitive plant species on site.

If Narrow Endemic Plant or Criteria Area Plant populations with long-term conservation value are found during site-specific surveys for implementing development or infrastructure projects within the PVCC, 90 percent avoidance will be required. If avoidance is infeasible, then a Determination of Biologically Equivalent or Superior Preservation (DBESP) and associated mitigation will be required.

Sensitive Vegetation Communities

Special-status habitat types are those vegetation communities that support rare, threatened, or endangered plant or wildlife species or are diminishing and are of special concern to resource agencies. Sensitive and/or protected habitat types within the PVCC project area include riparian habitats. The MSHCP (of which is the City of Perris is a signatory) provides protection for this sensitive vegetation community.

The MSHCP defines riparian/riverine areas as "lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depends upon soils moisture from a nearby fresh water source; or area with fresh water flow during all or a portion of the year."

The MSHCP defines vernal pools as "seasonal wetlands that occur in a depression area that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. With the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions."

Given the disturbed nature of the properties within the PVCC project area, the presence of vernal pool depressions are unlikely, especially depressions that have not been artificially created through farming activities and other ground disturbance. If avoidance is infeasible for any riparian/riverine areas or vernal pools located within the project area, then a DBESP must be approved by the wildlife agencies taking into account mitigation offered to offset the loss of functions associated with riparian/riverine areas and/or vernal pools as they pertain to the Covered Species.

Table 4.3-B, Special-Status Plants

Species Name	Status	Habitat Requirements	Potential for Occurrence On Site
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CNPS: List 1B.1	Vernal pools.	Not expected to occur on site due to a lack of suitable habitat.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: List 1B.1	Playas, vernal pools, marshes and swamps (coastal salt).	Moderate potential to occur on site.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CNPS: List 1B.3	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Not expected to occur on site due to a lack of suitable habitat.
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CNPS: List 1B.3	Valley and foothill grassland, vernal pools (alkaline soils).	Not expected to occur on site due to a lack of suitable habitat.
Mud nama *Nama stenocarpum*	Federal: None State: None CNPS: List 1B.3	Marshes and swamps.	Not expected to occur on site due to a lack of suitable habitat.

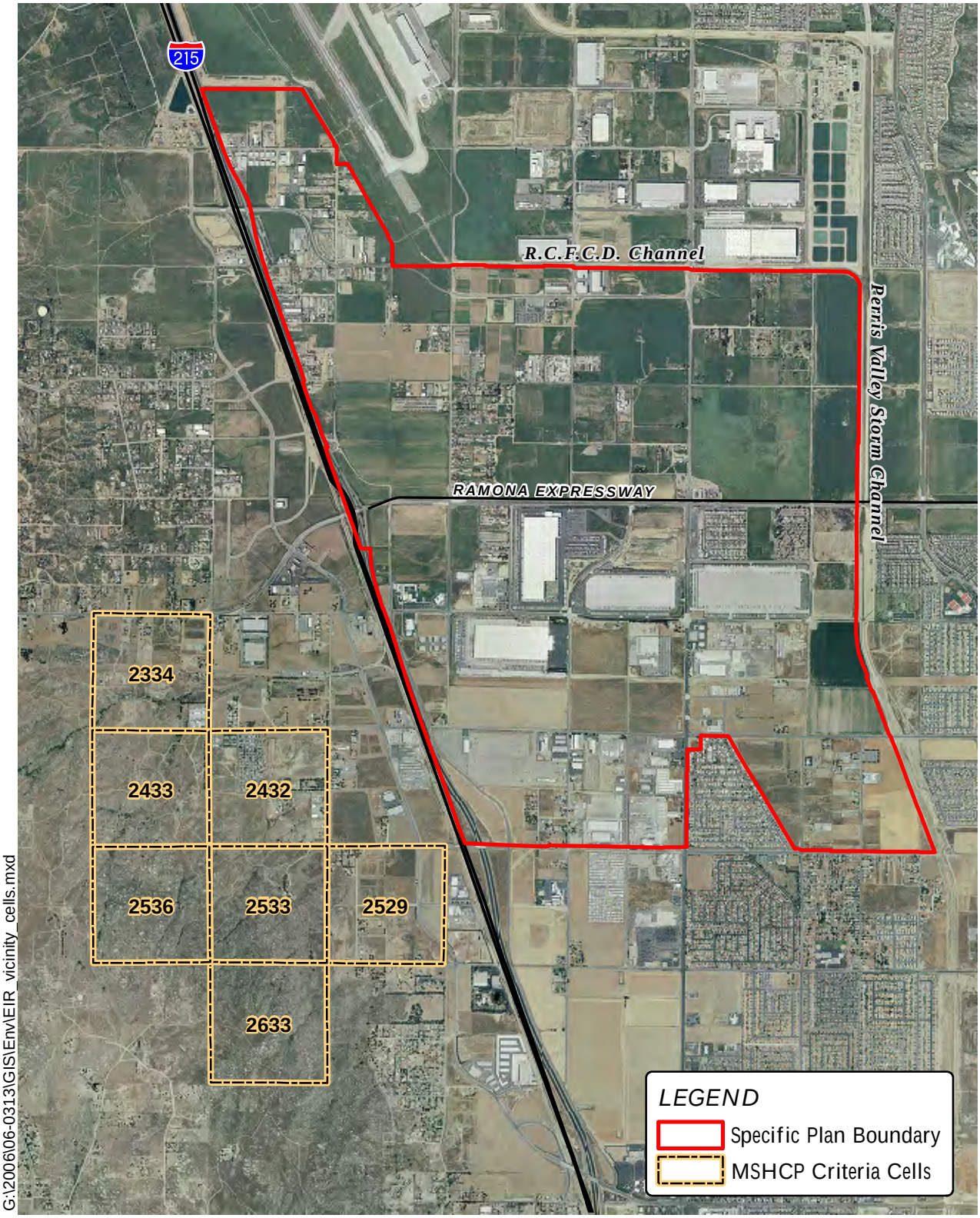
Species Name	Status	Habitat Requirements	Potential for Occurrence On Site
Munz's onion *Allium munzii*	Federal: FE State: SE CNPS: List 1B.1	Mesic/clay soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland.	Not expected to occur on site due to a lack of suitable habitat.
Parish's saltscale *Atriplex parishii*	Federal: None State: None CNPS: List 1B.3	Chenopod scrub, playas, vernal pools.	Not expected to occur on site due to a lack of suitable habitat.
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CNPS: 1B.1	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	Not expected to occur on site due to a lack of suitable habitat.
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: None State: None CNPS: List 1B.3	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Not expected to occur on site due to a lack of suitable habitat.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: List 1B.1	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Moderate potential to occur on site.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: List 1B.1	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not expected to occur on site due to a lack of suitable habitat.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: None State: None CNPS: List 1B.3	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Not expected to occur on site due to a lack of suitable habitat.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: List 2.1	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Not expected to occur on site due to a lack of suitable habitat.

Federal
FE – Federally Endangered
FT – Federally Threatened

State
SE – State Endangered
ST – State Threatened

CNPS List
List 1B – Plants rare, threatened, or endangered in California and elsewhere.
List 2 – Plants rare, threatened, or endangered in California, but more common elsewhere.
List 3 – Plants about which more information is needed.
List 4 – Plants of limited distribution.

CNPS Threat Code Extensions
0.1 – Seriously endangered in California
0.2 – Fairly endangered in California
0.3 - Not very endangered in California



Sources: Riverside Co. GIS, 2009;
Eagle Aerial, 2010.

Figure 4.3-1
MSHCP Criteria Cells

0 2,000 4,000 6,000 Feet

Wildlife

General assessments of the overall PVCC area were conducted by GLA biologists on August 10, 2007. Due to restricted access to the properties within the PVCC area, the biologist's field surveys were limited to general biological surveys and habitat assessments that could be conducted by the roadside. Therefore, detailed information for most resources, including vernal pools and fairy shrimp was difficult to obtain.

Sensitive Wildlife Species

The MSHCP designates survey areas for the western burrowing owl (BUOW), small mammals, and amphibians. The PVCC area does not coincide with mammal species survey areas or amphibian survey areas. Three species of migratory birds, least Bell's vireo (*Vireo bellii pusilus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), have some potential to occur within the PVCC as transient individuals during migration. The southwestern willow flycatcher and yellow-billed cuckoo would not be expected to breed within the PVCC area due to lack of suitable habitat. Least Bell's vireo may have the potential to breed on site, though its potential would be very limited.

The PVCC area is likely to contain ponding features (including road ruts) that contain the non-listed versatile fairy shrimp (Branchinecta lindahli), though the site is unlikely to support any listed species of fairy shrimp. Site-specific habitat assessments would need to be conducted during the rainy season to determine the presence/absence of potential fairy shrimp habitat.

The majority of the PVCC area occurs within the MSHCP survey area for western BUOW (see **Figure 4.3-2, Burrowing Owl Survey Area**). Some areas clearly do not contain suitable habitat for BUOW, specifically areas that are already developed. However, the remaining areas (approximately 1,600 acres) consist of active agricultural areas, disced fallow fields, and ruderal vegetation area; all of which meet minimum habitat requirements for BUOW. At a minimum, site specific habitat assessments will be required for these areas, including focused burrow surveys. If suitable habitat is confirmed, including the presence of burrows, then focused BUOW surveys will be required for individual projects.

The PVCC area does not occur within the Mammal Species Survey Area. As such, there are no survey/conservation requirements associated with mammals for the PVCC. Portions of the PVCC project site have some potential to support special-status small mammals, including the Federally- and State-listed Stephens' kangaroo rat (SKR) (*Dipodomys stephensi*); however, any impact to these species would be covered and mitigated for through the MSHCP, and with respect to SKR, also through the SKR Habitat Conservation Plan.

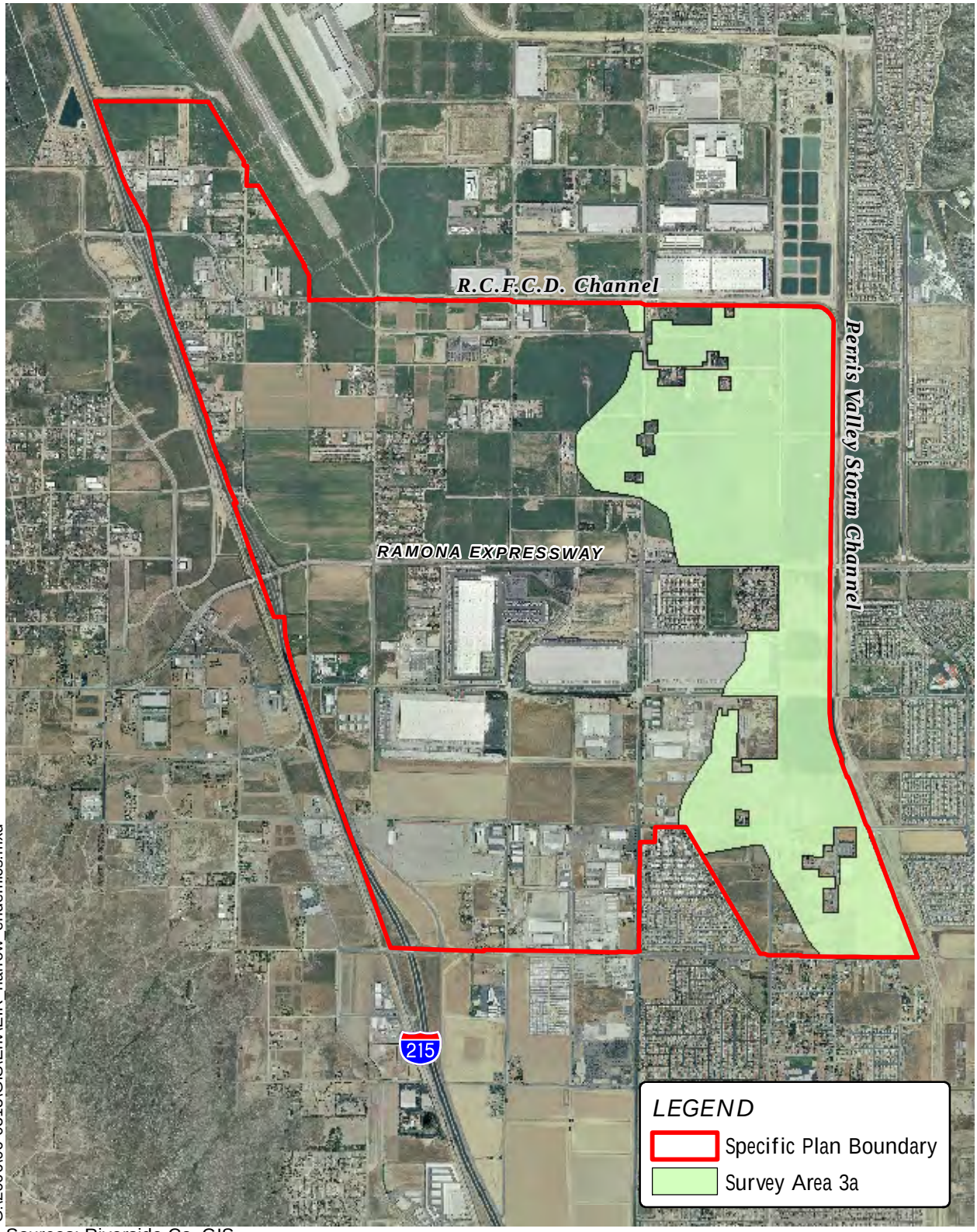
Table 4.3-C, Special Status Animals, shows the potential for occurrence of sensitive wildlife species on the PVCC project site.

Table 4.3-C, Special-Status Animals

Species Name	Status	Habitat Requirements	Potential for occurrence
Burrowing owl *Athene cunicularia*	Federal: FSC State: None CDFG: CSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Potential to occur on site.
Least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE CDFG: None	Dense riparian shrubbery, preferably where flowing water is present.	Potential to occur on site as a transient species.
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE CDFG: None	Breeds in dense riparian habitats along rivers, streams, or other wetlands.	Potential to occur on site as a transient species, though not expected breed on site due to a lack of suitable habitat.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST CDFG: None	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer and sandy or sandy loam soils.	Some potential to occur on site.
Western yellow billed cuckoo *Coccyzus americanus*	Federal: None State: SE CDFG: None	Prefers moist thickets, willows, overgrown pastures, and orchards.	Potential to occur on site as a transient species, though not expected breed on site due to a lack of suitable habitat.

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FSC – Federal Species of Concern

State
SE – State Endangered
ST – State Threatened
CSC – California Species of Concern
CFP – California Fully-Protected Species



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Sources: Riverside Co. GIS, 2011 (from RCIP, 2003); Eagle Aerial, 2010.

0 2,000 4,000 6,000 Feet

Figure 4.3-2
MSHCP Narrow Endemic and Criteria Area Plant Survey Area Number 3a

Jurisdictional Resources

The PVCC contains numerous drainage and other aquatic features, including various water basins and roadside ditches. Due to limited site access, a thorough assessment of jurisdictional waters could not be conducted. However, a general discussion of regulations and potential jurisdiction is provided below.

Army Corps of Engineers Jurisdiction

Pursuant to Section 404 of the Clean Water Act, the Army Corps of Engineers (ACOE) regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in ACOE regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
> *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
> *(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*
> *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce.*
> *(4) All impoundments of waters otherwise defined as waters of the United States under the definition;*
> *(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;*
> *(6) The territorial seas;*
> *(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.*
> *(8) Waters of the United States do not include prior converted cropland.[1] Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.*

In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined at 33 CFR 328.3(e) as:

> *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

[1] The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season...." [Emphasis added.]

Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the ACOE interpreted the interstate commerce requirement in a manner that restricted ACOE jurisdiction on isolated (intrastate) waters. On September 12, 1985, EPA asserted that ACOE jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in ACOE regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the ACOE' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc.*) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the ACOE to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the ACOE and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

Rapanos v. United States and Carabell v. United States

On June 5, 2007, the U.S. Environmental Protection Agency (EPA) and ACOE issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart shows the key points contained in the joint EPA/ACOE guidance.

For project sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPWs) tributary to TNWs and/or their adjacent wetlands as set forth in the chart below, the ACOE must apply the significant nexus standard, that includes the data set forth in the *Approved Jurisdictional Determination Form* included as Appendix B of the "U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook".

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the ACOE and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the ACOE. The information pertaining to isolated waters is also included on the *Approved Jurisdictional Determination Form*.

KEY POINTS CONTAINED IN JOINT EPA/CORPS GUIDANCE

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the ACOE published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands[2]);

[2] Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.10).

- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation," which require a minimum of 14 days of ponding to be considered a wetland.

Potential ACOE Jurisdiction for the PVCC

The overall PVCC project area contains roadside ditches and other ditches, which if shown to be historic diversions of natural waters, would be potential jurisdictional waters. However, the majority (if not all) of these ditches would be considered as non-RPWs, and so these features would need to be evaluated to determine if they exhibit a significant nexus to TNWs, and therefore jurisdictional themselves. Ditches that are shown to have been wholly excavated in uplands would not be subject to the jurisdiction of the ACOE.

Areas supporting hydrophytic vegetation would need to be evaluated to determine whether they satisfy wetland criteria. Any "isolated" wetlands will need to be evaluated by the ACOE and EPA following their joint regulatory guidance, in order to confirm whether any of the "isolated" wetlands would be jurisdictional.

Regional Water Quality Control Board Jurisdiction

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.[3] The memorandum states:

> *California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required...*
>
> *The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states....*
>
> *Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e)). The U.S. Supreme Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true–waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of*

[3] Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

> *or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification...*

In this memorandum the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act. However, while providing a recounting of the Act's definition of waters of the United States, this memorandum fails to also reference the Act's own definition of waste:

> *"Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.*

The lack of inclusion of a reference to "fill material," "dirt," "earth," or other similar terms in the Act's definition of "waste," or elsewhere in the Act, suggests that no such association was intended. Thus, the Chief Counsel's memorandum signals that the SWRCB is attempting to retain jurisdiction over discharge of fill material into isolated waters of the United States by administratively expanding the definition of "waste" to include "fill material" without actually seeking amendment of the Act's definition of waste (an amendment would require action by the state legislature). Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the ACOE pursuant to Section 404 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

The PVCC project area will likely contain features that will not be subject to ACOE jurisdiction as a water of the United States, but will be subject to the WDRs of the Regional Board as waters of the State. This may include seasonal ponded features that support aquatic resources such as fairy shrimp, including non-listed species such as the versatile fairy shrimp (*Branchinecta lindahli*).

California Department of Fish and Game Jurisdiction

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFG defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the ACOE. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

The PVCC area contains numerous drainage and other aquatic features, including various water basins and roadside ditches; however, the full extent of these features could not be assessed due to restricted access. If the roadside ditches and other ditches are shown to be historic diversions of natural waters, then they could be potential jurisdictional waters.

However, the majority (if not all) of these ditches may be considered as non-Relatively Permanent Waters (RWPs), and so these features will need to be evaluated, by facility-specific jurisdictional delineations, to determine if they exhibit a significant nexus to Traditional Navigable Waters (TNWs), and therefore jurisdictional themselves. Ditches that are shown to have been wholly excavated in uplands would not be subject to the jurisdiction of the ACOE. Areas supporting hydrophytic vegetation would need to be evaluated to determine whether they satisfy wetland criteria.

Related Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) prohibits "take" (harm or harassment [including to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct] of individuals of a protected species and, under certain circumstances, the destruction of habitat) of a Federally listed Endangered or Threatened species and will require incidental take permits or authorization. Individual projects within the PVCC area are required to avoid known occurrences of listed plants and habitat for listed wildlife species or otherwise mitigate potential impacts to these species through the requirements of Section 6 of the Multiple Species Habitat Conservation Plan (MSHCP).

Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503, 3503.5, and 3800 prohibit the take, possession, or destruction of any birds, their nests, or eggs. Much of the PVCC area (exceptions include portions of the "developed" areas) provides foraging habitat for many raptor species, including special-status raptors. The loss of raptor habitat is covered and mitigated for through participation with the MSHCP. Direct impacts to raptors (and other migratory birds), including their active nests, are prohibited through the MBTA and California Fish and Game Code. As such, vegetation removals should be conducted outside of the nesting season, but if not feasible then nesting bird surveys should be conducted prior to any removals. The proposed project will be required to comply with the MTBA and California Fish and Game Code, which prohibits the take of migratory and native bird species or their nests considered to utilize the site.

Federal Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the ACOE regulates discharges of dredged and/or fill material into waters of the United States. "Waters of the United States" are defined in ACOE regulations at 33 C.F.R. Part 328.3(a). Navigable waters of the United States are those waters of the United States that are navigable in the traditional sense. Waters of the United States is a broader term than navigable waters of the United States and includes adjacent wetlands and tributaries to navigable waters of the United States and other waters where the degradation or destruction of which could affect interstate or foreign commerce.

California Endangered Species Act

California Endangered Species Act (Fish and Game Code 2050 et seq.) (CESA) establishes that it is the policy of the state to conserve, protect, restore, and enhance Threatened or Endangered species and their habitats. CESA mandates that state agencies should not approve projects which would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. CESA requires state lead agencies to consult with the Department of Fish and Game (CDFG) during the CEQA process to avoid jeopardy to threatened or endangered species. CESA prohibits any person from taking or attempting to take a species listed as endangered or threatened (Fish and Game Code Section 2080). Section 2080 provides the permitting structure for CESA. The "take" of a state listed endangered or threatened species or candidate species will require incidental take permits as authorized by the CDFG.

California Fish and Game Code

The California Department of Fish and Game (CDFG), under Section 1600 of the Fish and Game Code, regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake, which supports fish or wildlife. CDFG defines a stream, including creeks and rivers, as "a body of water that flows at least periodically or intermittently through a bed or channel having surface or

subsurface flow that supports or has supported riparian vegetation." Lakes under the jurisdiction of CDFG may also include man-made features.

Stephens' Kangaroo Rat Habitat Conservation Plan

The PVCC project area is located within the boundary of the adopted Habitat Conservation Plan (HCP) for the endangered SKR implemented by the Riverside County Habitat Conservation Agency (RCHCA). The SKR HCP mitigates impacts from development on the SKR by establishing a network of preserves and a system for managing and monitoring them. Through implementation of the SKR HCP, more than $45 million has been dedicated to the establishment and management of a system of regional preserves designed to ensure the persistence of SKR in the plan area. This effort has resulted in the permanent conservation of approximately 50% of the SKR-occupied habitat remaining in the HCP area. Through direct funding and in-kind contributions, SKR habitat in the regional reserve system is managed to ensure its continuing ability to support the species.

Riverside County Integrated Plan (RCIP), Western Riverside Multiple Species Habitat Conservation Plan (MSHCP)

The MSHCP serves as a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP), pursuant to Section (a)(1)(B) of the federal Endangered Species Act of 1973, as well as a Natural Communities Conservation Plan (NCCP) under the State NCCP Act of 2001. The plan "encompasses all unincorporated Riverside County land west of the crest of the San Jacinto mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning Beaumont, Calimesa, Perris, Hemet, and San Jacinto." The overall biological goal of the MSHCP is to conserve covered species and their habitats, as well as maintain biological diversity and ecological processes while allowing for future economic growth within a rapidly urbanizing region.

Federal and state wildlife agencies approved permits required to implement the MSHCP on June 22, 2004. Implementation of the plan will conserve approximately 500,000 acres of habitat, including land already in public or quasi-public ownership and about 153,000 acres of land in private ownership that will be purchased or conserved through other means. The money for purchasing private land will come from development mitigation fees as well as state and federal funds.

The MSHCP includes a program for the collection of development mitigation fees, policies for the review of projects in areas where habitat must be conserved, and policies for the protection of riparian areas, vernal pools, and narrow endemic plants. It also includes a program for performing plant, bird, reptile, and mammal surveys.

The intent of the MSHCP is to ensure the survival of a range of plants and animals and avoid the cost and delays of mitigating biological impacts on a project-by-project basis. It would allow the incidental take of currently listed species and their habitat from development and covered improvement projects. It would also allow the incidental take of species that might be listed in the future.

City of Perris Ordinance No. 1123

The City of Perris established a local development mitigation fee for funding the preservation of natural ecosystems in accordance with the MSHCP. The proposed project is located in the City of Perris which has adopted Ordinance Number 1123 to establish a local development mitigation fee for funding the preservation of natural ecosystems in accordance with the MSHCP. Commercial and Industrial facilities are assessed a fee of $5,620 per acre. Residential development with density less than 8.0 dwelling units per acre are assessed a fee of $1,651 per dwelling unit. Residential development with density between 8.1 and 14.0 dwelling units per acre are assessed a fee of $1,057 per dwelling unit, and residential development with density greater than 14.0 dwelling units per acre are assesses a fee of $859 per dwelling unit.

City of Perris GP Conservation Element

Goal II	Preservation of areas with significant biotic communities.
Policy II.A	Comply with state and federal regulations to ensure protection and preservation of significant biological resources.
Measure II.A.2	Public and private projects, located in areas with potential for moderate or high plant and wildlife sensitivity, require biological surveys as part of the development review process.
Measure II.A.3	Public and private projects that are also subject to federal or State approval with respect to impacts to Water of the U.S. and/or Streambeds, require evidence of completion of the applicable federal permit process prior to the issuance of a grading permit.
Goal III	Implementation of the Multi-Species Habitat Conservation Plan (MSHCP).
Policy III.A	Review all public and private development and construction projects and any other land use plans or activities within the MSHCP area, in accordance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP.

Design Considerations

No specific design measures that would avoid or reduce potentially significant impacts to sensitive biological resources are proposed as part of this project.

Thresholds of Significance

The City of Perris has not established local CEQA significance thresholds and instead, defers to the thresholds of significance identified in Appendix G to the State *CEQA Guidelines*. Based on Appendix G to the State *CEQA Guidelines*, biological impacts may be considered potentially significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means;
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan.
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or establish native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or
- conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.

Environmental Impacts

***Threshold**: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.*

Special-Status Plant Species

Areas that support a potential for special status plants are located in eastern portion of the PVCC area (see **Figure 4.3-1, Narrow Endemic and Criteria Area Plant Species Survey Area Number 3a**). However, based on the disturbed nature of the PVCC area, lack of specific habitat types, and/or lack of suitable soils, many of the target species are not expected to occur.

Parts of the eastern portion of the PVCC are located within CAPSSA 3a. Several special-status plant species have a moderate potential for occurrence within the PVCC area (see **Table 4.3-B**). Plant species with a potential to occur on site include Smooth tarplant (*Centromadia pungens* ssp. *laevis*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). CAPSSA target species associated with the area include:

- San Jacinto Valley crownscale (*Atriplex cornata* var. *notatior*)
- Parish's saltscale (*Atriplex parishii*)
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)
- Smooth tarplant (Centromadia pungens ssp. laevis)
- Round-leaved filaree (*Erodium macrophyllum*)
- Coulter's goldfields (*Lasthenia glabrat* ssp. *coulteri*)
- Little mousetail (*Myosurus minimus*)
- Mud nama (*Nama stenocarpum*)

The PVCC area is located within the NEPSSA 3a (see **Figure 4.3-1**). The narrow endemic plant species within NEPSSA 3a have minimal potential for occurrence within the PVCC area due to lack of suitable habitat.

The proposed project will result in potentially significant impacts to special-status plant species. However, project-specific surveys for implementing development and infrastructure projects would be required during the appropriate time of the year to determine the presence/absence of all Narrow Endemic Plants and Criteria Area Plants within NEPSSA and CAPSSA Survey Area 3a as shown on **Figure 4.3-1**. Implementation of mitigation measure **MM Bio 6** will reduce potential impacts to special-status plant species to less than significant levels.

Special-Status Wildlife Species

Despite the fact that the PVCC area is located in a predominately developed, agricultural, and disturbed environment, special-status native species, primarily birds, may occur in less than optimal and/or disturbed conditions, and may forage over agricultural habitats present in the PVCC area.

Raptor Foraging

Much of the PVCC area (exceptions include portions of the "developed" areas) provides foraging habitat for many raptor species, including special-status raptors. The loss of raptor habitat is covered and mitigated for through participation with the MSHCP. Direct impacts to raptors (and other migratory birds), including their active nests, are prohibited through the MBTA and California Fish and Game Code. As such, vegetation removals should be conducted outside of the nesting season, but if not feasible then nesting bird surveys, as required by mitigation measure **MM Bio 1** shall be conducted prior to any removals.

The proposed project will result in potentially significant impacts to migratory birds. However, implementation of mitigation measure **MM Bio 1** will reduce potential impacts to migratory birds to less than significant levels.

Burrowing Owl

The majority of the PVCC occurs within the MSHCP survey area for the BUOW. Some areas clearly do not contain suitable habitat for the burrowing owl, specifically areas that are already developed. However, the remaining areas consist of active agricultural areas, disced fallow fields, and ruderal vegetation areas; all of which meet minimum habitat requirements for the BUOW. This constitutes approximately 1,600 acres of the PVCC area. At a minimum, site-specific habitat assessments will be required for implementing development and infrastructure projects within these areas, including focused burrow surveys. If suitable habitat is confirmed, including the presence of burrows, then focused BUOW surveys, as required by mitigation measure **MM Bio 2**, shall be conducted.

For implementing development or infrastructure projects occurring outside of the MSHCP Criteria Area, one of the following two measures applies if BUOWs are detected on the site of such implementing project:

- If the implementing development or infrastructure project site contains, or is part of an area supporting less than 35 acres of suitable habitat or the focused BUOW survey reveals that the site and the surrounding area supports fewer than 3 pairs of BUOWs, then the on-site BUOWs will be passively or actively relocated following accepted protocols.
- If the implementing development or infrastructure project site (including adjacent areas) supports three or more pairs of BUOWs, supports greater than 35 acres of suitable habitat, and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved on the site of such implementing project.

With respect to the second measure, if 90-percent avoidance is not feasible, then the MSHCP requires a DBESP to allow for the relocation of BUOWs.

The proposed project will result in potentially significant impacts to BUOWs. However, implementation of mitigation measure **MM Bio 2** will reduce potential impacts to BUOWs to less than significant levels.

Small Mammals

The PVCC does not occur within the Mammal Species Survey Area. As such, there are no survey or conservation requirements associated with mammals for the project area. Portions of the PVCC project area have some potential to support a few special-status small mammals, including the federally- and state-listed SKR (*Dipodomys stephensi*); however, any impact to these species would be covered and mitigated for through compliance with the MSHCP, and with respect to SKR, also through the SKR Habitat Conservation Plan. Compliance with the MSHCP and payment of applicable mitigation fees will reduce impacts to SKR to less than significant levels.

Amphibians

The PVCC does not occur within the Amphibian Species Survey Area. As such, there are no survey or conservation requirements associated with amphibians for the PVCC project area. The impact to amphibians is considered less than significant.

Implementation of the PVCC will result in potentially significant impacts, either directly or through habitat modifications, to species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. Compliance with mitigation measures **MM Bio 1**, **MM Bio 2**, **and MM Bio 6 will reduce these potential impacts to below the level of significance. Therefore, impacts will be less than significant with mitigation incorporated.**

Threshold: *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.*

Approximately 17.16 acres of "riparian" areas were noted by the GLA biologists during the general biological assessments, though more, smaller areas may exist that could not be detected from the roads. The riparian areas that were identified by GLA ranged from roadside/agricultural ditches supporting southern cattails (*Typha domingensis*) to ponds and basins supporting mule fat (*Baccharis salicifolia*) and willow (*Salix* spp.) scrub. A substantial amount of the areas mapped as riparian (and perhaps all) would likely be excluded as MSHCP "riparian areas" due to their artificial nature. However, site-specific mapping would be required to for implementing development and infrastructure projects to determine which such projects may be subject to additional survey or conservation requirements, and which may not (see mitigation measures **MM Bio 5 and MM Bio 6**).

If suitable habitat for species listed in Section 6.1.2 of the MSHCP (least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp) occurs within any proposed implementing development or infrastructure project area and project design does not incorporate avoidance of the suitable habitat, avoidance and minimization measures shall be implemented in accordance with the MSHCP species-specific objectives for the species (see mitigation measure **MM Bio 5**).

Implementation of mitigation measures **MM Bio 5, MM Bio 6,** and Section 6.1.2 of the MSHCP will reduce potential impacts to riparian habitats from the PVCC and subsequent implementing development or infrastructure projects to less than significant levels.

Riparian habitats located in the PVCC project area are associated with drainage features that are potentially jurisdictional. See the discussion below for a more detailed discussion of potential impacts to these jurisdictional resources in the PVCC project area.

Implementation of the PVCC will result in potentially significant impacts to riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. Compliance with mitigation measures **MM Bio 5** and **MM Bio 6** will reduce these potential impacts to below the level of significance. **Therefore, impacts will be less than significant with mitigation incorporated.**

Threshold: *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.*

During the habitat assessment, GLA biologists noted numerous drainage and other aquatic features, including various water basins and roadside ditches. A comprehensive, wetland/waters delineation was not conducted due to restricted access. Jurisdictional delineations will need to be conducted for implementing development and infrastructure projects to determine whether features on such individual development sites would be subject to the jurisdictions of the ACOE, RWQCB, and CDFG (see mitigation measure **MM Bio 4**).

The PVCC project area contains roadside ditches and other ditches, which if later are shown to be historic diversions of natural waters, would be potential jurisdictional waters. However, the majority (if not all) of these ditches would be considered as non-RPWs and so these features will need to be evaluated in facility-specific jurisdictional delineations to determine if they exhibit a significant nexus to TNWs, and therefore jurisdictional themselves. Ditches that are shown to have been wholly excavated in uplands would not be subject to the jurisdiction of the ACOE.

Areas supporting hydrophytic vegetation would need to be evaluated at a project-specific level to determine whether they satisfy wetland criteria. Any "isolated" wetlands will need to be evaluated by the ACOE and the EPA following their joint regulatory guidance, in order to confirm whether any of the "isolated" wetlands would be jurisdictional.

Many of the features within the PVCC area may not be subject to ACOE jurisdiction as a water of the United States, but may be subject to the WDRs of the RWQCB as waters of the State. This may include isolated basins and seasonal ponded features that support aquatic resources such as fairy shrimp, including non-listed species such as the versatile fairy shrimp (*Branchinecta lindahli*).

The PVCC area contains features, including drainage ditches that could potentially be subject to CDFG jurisdiction. Implementing project-specific jurisdictional delineations will be required to determine the extent, if any, of CDFG jurisdiction. Impacts to CDFG jurisdiction will require a Streambed Alteration Agreement. Implementation of mitigation measure **MM Bio 3** and compliance with Section 6.1.2 of the MSHCP reduces potential impacts to federally protected wetlands and other jurisdictional features from project implementation to less than significant levels. If avoidance is not feasible, then individual implementing projects will require the approval of a DBESP including appropriate mitigation to offset the loss of functions and values as they pertain to the MSHCP covered species. Vernal pools and other seasonal ponding depressions will also need to be evaluated for the presence of listed fairy shrimp.

Implementation of the PVCC will have potentially significant impacts on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means. Compliance with mitigation measures **MM Bio 3** and **MM Bio 4** will reduce these potential impacts to below the level of significance. **Therefore, impacts will be less than significant with mitigation incorporated.**

Threshold: *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan.*

The proposed PVCC is located within geographic area covered by the MSHCP. However, the proposed PVCC area is not located within the MSHCP Criteria Area (**Figure 4.3-3**); therefore, the PVCC and its subsequent implanting projects are not subject to the HANS or JPR process.

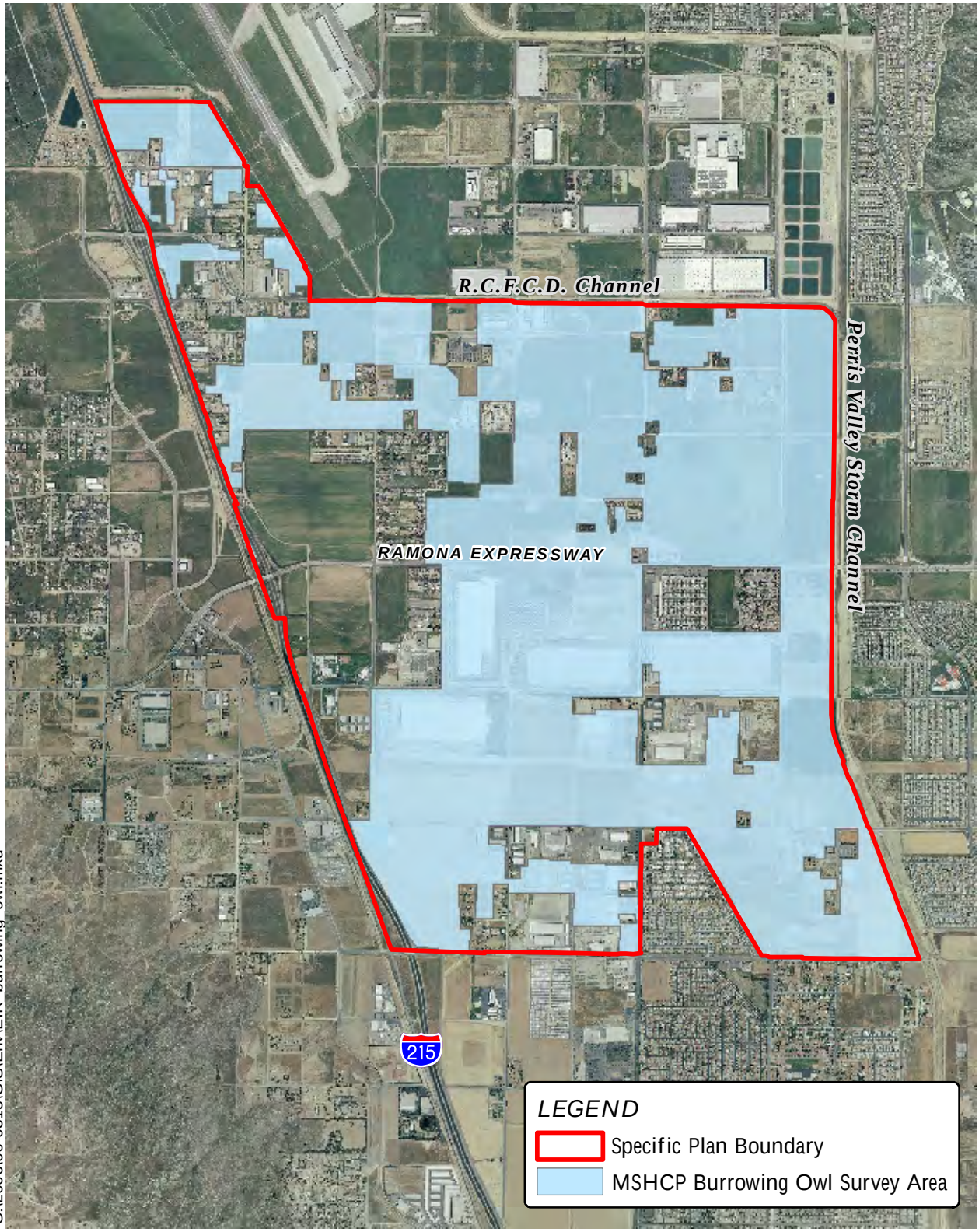
The MSHCP establishes Criteria Area boundaries in order to facilitate the process by which properties are evaluated for inclusion in the MSHCP Conservation Area. The Criteria Area is an area significantly larger than what may be needed for inclusion in the MSHCP Conservation Area. Proposed projects within the Criteria Area are evaluated using MSHCP Conservation Criteria. The Criteria Area is an analytical tool, which assists in determining which properties require conservation under the MSHCP.

The PVCC area occurs within the Mead Valley Area Plan of the overall MSHCP planning area. However, the PVCC area does not occur within a Criteria Area (see **Figure 4.3-3, MSHCP Criteria Cells**).

In accordance with the MSHCP, the proposed PVCC was also reviewed for consistency with the MSHCP Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures). The PVCC's consistency with these MSHCP sections, is discussed below.

Consistency with MSHCP Section 6.1.2

Riparian/Riverine areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year. Vernal pools are seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soil, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portions of the growing season.



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Sources: Riverside Co. GIS, 2011
(from RCIP 2003); Eagle Aerial, 2010.

Figure 4.3-3
MSHCP Burrowing Owl Survey Area

Approximately 17.16 acres of "riparian" areas were noted during the roadside assessments, though more, smaller areas may exist within areas that could not be detected form the roads. The riparian areas that were identified by the biologists ranged from roadside/agricultural ditches supporting southern cattails (*Typha domingensis*) to ponds and basins supporting mule fat (*Baccharis salicifolia*) and willow (*Salix* spp.) scrub. A substantial amount of the areas mapped as riparian (and perhaps all) would likely be excluded as MSHCP "riparian areas" due to their artificial nature.

Section 6.1.2 of the MSHCP requires habitat assessments (and focused surveys where suitable habitat is present) for riparian bird species with MSHCP survey requirements, including the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). All three species are migratory birds that could have some potential to occur within the PVCC area as transient individuals during migration. However, the southwestern willow flycatcher and yellow-billed cuckoo would not be expected to breed within the PVCC area due to a lack of suitable habitat. The least Bell's vireo may have a moderate potential to breed within scattered isolated riparian vegetation within the PVCC area, though the opportunity is extremely limited. Project-specific focused surveys will need to be conducted within potentially suitable habitat if impacted by individual development projects. If avoidance is infeasible for least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) located within the PVCC area, then a DBESP must be prepared and approved, taking into account mitigation offered to offset the loss of functions associated with riparian/riverine areas as they pertain to Covered Species.

The majority of lands within the PVCC area are not likely to support vernal pools given their disturbed nature. The presence of vernal pool depressions are unlikely, especially depressions that have not been artificially created through farming activities and other ground disturbance. However, the presence of vernal pools cannot be ruled out without site-specific surveys for implementing projects conducted in the appropriate season.

The PVCC area is likely to contain ponding features (including road ruts) that contain the non-listed versatile fairy shrimp (*Branchinecta lindahli*), though the PVCC area is unlikely to support any listed species of fairy shrimp. Future project-specific focused surveys will be required during the appropriate season to confirm the presence/absence of the relevant vernal pool plants and listed fairy shrimp (see mitigation measures **MM Bio 5 and MM Bio 6**). If avoidance is infeasible for any riparian/riverine areas or vernal pools located within the PVCC area, then a DBESP must be prepared and approved by the wildlife agencies taking into account mitigation offered to offset the loss of functions associated with and/or vernal pools as they pertain to the Covered Species.

With the implementation of mitigation measures **MM Bio 3** through **MM Bio 5**, the PVCC and its implementing development and infrastructure projects will comply with the requirements of the MSHCP, and will therefore, be consistent with Section 6.1.2 of the MSHCP.

Consistency with MSHCP Section 6.1.3

Under Section 6.1.3, *Protection of Narrow Endemic Plant Species*, site-specific focused surveys for narrow endemic plant species are required where appropriate or suitable habitat is present within the Narrow Endemic Plant Species Survey Area (NEPSSA). The eastern portion of the PVCC area coincides with NEPSSA number 3a, which includes the following target species:

- Munz's onion (*Allium munzii*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- California Orcutt's grass (*Orcuttia californica*)
- San Diego ambrosia (*Ambrosia pumila*)
- Spreading navarretia (*Navarretia fossalis*)
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*)

The narrow endemic plant species within Survey Area 3a have minimal potential for occurrence within the PVCC area due to lack of suitable habitat. However, focused surveys for individual projects would be required during the appropriate time of the year to determine the presence/absence of all Narrow Endemic Plants and Criteria Area Plants (see **MM Bio 6**).

With the implementation of mitigation, the PVCC and individual projects will comply with the requirements of the MSHCP, and will therefore be consistent with Section 6.1.3 of the MSHCP.

Consistency with MSHCP Section 6.1.4

Section 6.1.4, *Guidelines Pertaining to the Urban/Wildlife Interface*, outlines the minimization of indirect effects associated with locating development in proximity to the MSHCP Conservation Area. To minimize these indirect effects, guidelines in Section 6.1.4 of the MSHCP shall be implemented in conjunction with the review of individual public and private development projects that are located in proximity to the MSHCP Conservation Area. The review of such implementing development and infrastructure projects is required to address drainage, toxics, lighting, noise, invasive species, barriers, and grading/land development.

MSHCP Criteria Cells are located southwest of the PVCC area and across I-215. Consequently the PVCC is not expected to affect the Criteria Area regarding drainage, toxics, lighting, noise, invasive species, barriers, and grading/land development. Future implementing development and infrastructure projects within the PVCC will comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit program.

The PVCC area is not located adjacent to MSHCP conservation areas; therefore, the PVCC and its implementing projects will not have edge effects on any existing or future MSHCP conservation areas. The PVCC is in compliance with Section 6.1.4 of the MSHCP.

Consistency with MSHCP Section 6.3.2

The MSHCP also requires additional surveys for certain species if the project is located within the areas shown on Figure 6-2 (Criteria Area Species Survey Area), Figure 6-3 (Amphibian Species Survey Areas with Critical Area), Figure 6-4 (Burrowing Owl Survey Areas with Criteria Area), Figure 6-5 (Mammal Species Survey Areas with Criteria Area), and Figure 9-9 (Delhi Sands Flower-Loving Fly Suitable Habitat with Criteria Area) of the MSHCP. The MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. The project site is located outside of the survey areas for amphibians, Delhi Sands Flower-loving fly, and mammals. Therefore, habitat assessments and focused surveys for these species are not required for the PVCC and its implementing projects. Criteria Area Species Survey Areas are discussed above in conjunction with Narrow Endemic Plants.

The majority of the PVCC area occurs within the MSHCP Survey Area for the western burrowing owl (BUOW). Some areas within the PVCC clearly do not contain suitable habitat for burrowing owl, specifically areas that are already developed. However, the remaining areas (approximately 1,600 acres of the SP) consist of active agricultural areas, disced fallow fields, and ruderal vegetation area; all of which meet minimum habitat requirements for BUOW. At a minimum, site specific habitat assessments will be required for individual development projects. If suitable habitat is confirmed, including the presence of burrows, then focused BUOW surveys will be required.

MSHCP Objective 5 for the BUOW states that if BUOWs are detected on a project site then appropriate action(s) shall be taken as follows:

If the site is within the Criteria Area, then at least 90 percent of the area with long-term conservation value will be included in the MSHCP Conservation Area. Otherwise:

1. If the site contains, or is part of an area supporting less than 35 acres of suitable habitat or the survey reveals that the site and the surrounding area supports fewer than three pairs of BUOWs, then the on-site BUOWs will be passively or actively relocated following accepted protocols.

2. If the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat, and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and BUOW pairs will be conserved on site.

Since the PVCC area occurs outside of the Criteria Area, the basis for long-term conservation would depend on the number of breeding pairs present within an implementing development of infrastructure project site (three or more pairs versus fewer than three pairs). If the 90-percent avoidance requirement would apply, but avoidance was not feasible, then a DBESP would need to be approved to mitigate for the loss of occupied owl habitat. Furthermore, whether avoidance is not required or not feasible, any BUOWs present on an implementing project site must be relocated following accepted protocols, and take of active nests must be avoided.

The PVCC does not occur within the Mammal Species Survey Area of the MSHCP. As such, there are no survey or conservation requirements associated with mammals for the PVCC or any of its implementing projects..

With implementation of mitigation measure **MM Bio 2,** the PVCC and its implementing projects will be consistent with Section 6.3.2 of the MSHCP.

Consistency with MSHCP Section 6.4

Section 6.4 (Fuels Management*)* of the MSHCP, focuses on hazard reduction for human safety in a manner compatible with public safety and conservation of biological resources. According to the *Fuels Management Guidelines* of the MSHCP, new development that is planned adjacent to the MSHCP Conservation Area, or other undeveloped areas, shall incorporate brush management within the development boundaries and shall not encroach into the MSHCP Conservation Area. The proposed PVCC is not located directly adjacent to MSHCP Conservation Areas and is surrounded by already developed or highly disturbed lands. Any necessary fuel modification associated with the PVCC will be incorporated into its implementing projects. The PVCC and its implementing projects are therefore consistent with Section 6.4 of the MSHCP.

Stephens' Kangaroo Rat Habitat Conservation Plan

The project area is located within the Fee Area boundary of the SKR HCP.

The SKR HCP establishes a mechanism for the long-term conservation of the species. Potential impacts to the SKR are mitigated on a regional basis through compliance with the SKR HCP. As the project is not in an identified core reserve, the project will not conflict with the SKR HCP and impacts are less than significant.

With implementation of mitigation measures **MM Bio 1, MM Bio 2, MM Bio 4, MM Bio 5, and MM Bio 6,** the PVCC and its subsequent implementing projects are consistent with the MSHCP. The

proposed PVCC and its subsequent implementing projects will not conflict with an approved local, regional, or state conservation plan and **potential impacts are less than significant with mitigation.** Implementation of the PVCC will have potentially significant impacts by conflicting with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan. However, compliance with mitigation measures **MM Bio 3** through **MM Bio 6** will reduce these potential impacts to below the level of significance. **Therefore, impacts will be less than significant with mitigation incorporated.**

Threshold: *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or establish native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

Wildlife corridors are features whose primary function is to connect at least two significant wildlife habitat areas. These corridors may help to reduce or moderate some of the adverse effects of habitat fragmentation by facilitating dispersal of individuals between substantive patches of remaining habitat, allowing for both long-term genetic interchange and individuals to re-colonize habitat patches from which populations have been locally extirpated. The PVCC area is not adjacent to any MSHCP-identified cores or linkages, and bounded by Interstate 215 to the west, March Air Reserve Base and Oleander Avenue to the north, the Perris Valley Storm Channel to the east, and Placentia Avenue to the south. Surrounding existing and approved development limits the long-term suitability of the project site for the movement of native resident or migratory wildlife species. There are no water features on the project site that support fish species. Therefore, although the proposed project will interfere with the movement of wildlife species across the project site, the potential impact will be less than significant. Additionally, there are no known wildlife nursery sites on or near the project site. Therefore, the proposed project will not directly or indirectly impact or impede the use of any recognized wildlife nursery sites and the potential **impact is less than significant**. Furthermore, implementation of mitigation measures **MM Bio 1, MM Bio 2, MM Bio 5, and MM Bio 6,** will further reduce this impact.

Threshold: *Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.*

The proposed project is located in the City of Perris which has created an ordinance (Ordinance Number 1123) to establish a local development mitigation fee for funding the preservation of natural ecosystems in accordance with the MSHCP. Commercial and Industrial facilities are assessed a fee of $5,620 per acre. Residential development with density less than 8.0 dwelling units per acre are assessed a fee of $1,651 per dwelling unit. Residential development with density between 8.1 and 14.0 dwelling units per acre are assessed a fee of $1,057 per dwelling unit, and residential development with density greater than 14.0 dwelling units per acre are assesses a fee of $859 per dwelling unit.

The City of Perris also has the following General Plan Policies for the protection of biological resources:

Goal II	Preservation of areas with significant biotic communities.
Policy II.A	Comply with state and federal regulations to ensure protection and preservation of significant biological resources.
Measure II.A.2	Public and private projects, located in areas with potential for moderate or high plant and wildlife sensitivity, require biological surveys as part of the development review process.
Measure II.A.3	Public and private projects that are also subject to federal or State approval with respect to impacts to Water of the U.S. and/or Streambeds, require evidence of completion of the applicable federal permit process prior to the issuance of a grading permit.

Goal III	Implementation of the Multi-Species Habitat Conservation Plan (MSHCP).
Policy III.A	Review all public and private development and construction projects and any other land use plans or activities within the MSHCP area, in accordance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP.

Implementing development projects will be required to pay applicable MSHCP fees pursuant to Ordinance Number 1123. Through compliance with the MSHCP and Ordinance Number 1123, the PVCC and its implementing projects will not conflict with any local policies or ordinances protecting biological resources and the **impact is considered less than significant**.

Proposed Mitigation Measures

An Environmental Impact Report is required to describe feasible mitigation measures which could minimize significant adverse impacts (State *CEQA Guidelines*, Section 15126.4). Mitigation measures were evaluated for their ability to eliminate or reduce the potential significant adverse impacts to special-status species and loss of foraging habitat. The following measures shall be implemented by new development projects within the PVCC to eliminate or reduce potentially significant impacts to biological resources to below the level of significance.

MM Bio 1: In order to avoid violation of the MBTA and the California Fish and Game Code, site preparation activities (removal of trees and vegetation) for all PVCC implementing development and infrastructure projects shall be avoided, to the greatest extent possible, during the nesting season (generally February 1 to August 31) of potentially occurring native and migratory bird species.

If site-preparation activities for an implementing project are proposed during the nesting/breeding season (February 1 to August 31), a pre-activity field survey shall be conducted by a qualified biologist prior to the issuance of grading permits for such project, to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone. If active nests are not located within the implementing project site and an appropriate buffer of 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or 100 feet of sensitive or protected songbird nests, construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, no grading or heavy equipment activity shall take place within at least 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected (under MBTA or California Fish and Game Code) bird nests (non-listed), or within 100 feet of sensitive or protected songbird nests until the nest is no longer active.

MM Bio 2: Project-specific habitat assessments and focused surveys for burrowing owls will be conducted for implementing development or infrastructure projects within burrowing owl survey areas. A pre-construction survey for resident burrowing owls will also be conducted by a qualified biologist within 30 days prior to commencement of grading and construction activities within those portions of implementing project sites containing suitable burrowing owl habitat and for those properties within an implementing project site where the biologist could not gain access. If ground disturbing activities in these areas are delayed or suspended for more than 30 days after the pre-construction survey, the area shall be resurveyed for owls. The pre-construction survey and any relocation activity will be conducted in accordance with the current Burrowing Owl Instruction for the Western Riverside MSHCP.

If active nests are identified on an implementing project site during the pre-construction survey, the nests shall be avoided or the owls actively or passively relocated. To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31), and 160 feet during the non-breeding season.

If burrowing owls occupy any implementing project site and cannot be avoided, active or passive relocation shall be used to exclude owls from their burrows, as agreed to by the City of Perris Planning Department and the CDFG. Relocation shall be conducted outside the breeding season or once the young are able to leave the nest and fly. Passive relocation is the exclusion of owls from their burrows (outside the breeding season or once the young are able to leave the nest and fly) by installing one-way doors in burrow entrances. These one-way doors allow the owl to exit the burrow, but not enter it. These doors shall be left in place 48 hours to ensure owls have left the burrow. Artificial burrows shall be provided nearby. The implementing project area shall be monitored daily for one week to confirm owl use of burrows before excavating burrows in the impact area. Burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible pipe shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. The CDFG shall be consulted prior to any active relocation to determine acceptable receiving sites available where this species has a greater chance of successful long-term relocation. If avoidance is infeasible, then a DBESP will be required, including associated relocation of burrowing owls. If conservation is not required, then owl relocation will still be required following accepted protocols. Take of active nests will be avoided, so it is strongly recommended that any relocation occur outside of the nesting season.

MM Bio 3: Project-specific delineations will be required to determine the limits of ACOE, RWQCB, and CDFG jurisdiction for implementing projects that may contain jurisdictional features. Impacts to jurisdictional waters will require authorization by the corresponding regulatory agency. If impacts are indicated in an implementing project-specific delineation, prior to the issuance of a grading permit, such implementing projects will obtain the necessary authorizations from the regulatory agencies for proposed impacts to jurisdictional waters. Authorizations may include, but are not limited to, a Section 404 permit from the ACOE, a Section 401 Water Quality Certification from the RWQCB, and a Section 1602 Streambed Alteration Agreement from CDFG.

MM Bio 4: Project-specific mapping of riparian and unvegetated riverine features will be required for implementing projects pursuant to Section 6.1.2 of the MSHCP. For areas not excluded as artificially created, the MSHCP requires 100 percent avoidance of riparian/riverine areas. If for any implementing project avoidance is not feasible, then such implementing projects will require the approval of a DBESP including appropriate mitigation to offset the loss of functions and values as they pertain to the MSHCP covered species. Riparian vegetation will also need to be evaluated for the least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo.

MM Bio 5: Project-specific mapping of vernal pools for implementing projects will be required pursuant to Section 6.1.2 of the MSHCP. For areas not excluded as artificially created, the MSHCP requires 100 percent avoidance of vernal pools. If for any implementing project avoidance is not feasible, then such implementing projects will require the approval of a DBESP including appropriate mitigation to offset the loss of functions and values as they pertain to the MSHCP and covered species. Vernal pools and other seasonal ponding depressions will also need to be evaluated for listed fairy shrimp.

MM Bio 6: Within areas of suitable habitat associated with the Narrow Endemic Plant Species Survey Area (NEPSSA) and Criteria Area Plant Species Survey Area (CAPSSA), focused plants surveys will be required for implementing projects. The MSHCP requires at least 90 percent avoidance of areas providing long-term conservation value for the NEPSSA and CAPSSA target species. If avoidance is not feasible, then such implementing projects will require the approval of a DBESP including appropriate mitigation.

Summary of Environmental Effects After Mitigation Measures Are Implemented

Based on compliance with the MSHCP with implementation of the mitigation measures identified above, potential adverse impacts associated with special-status species and their habitat resulting from implementation of the PVCC are reduced to a **less than significant level**.

4.4 Cultural Resources

Potential impacts related to the disturbance of human remains, including those interred outside of formal cemeteries, were found to be less than significant in the Initial Study/NOP prepared for this project (Appendix A). The focus of the following discussion is related to whether the project will cause a substantial adverse change in the significance of historical and/or archaeological resources, or will directly or indirectly destroy a unique paleontological resource or site or unique geological features.

In response to the NOP, comment letters were received from the Native American Heritage Commission (NAHC), the Pechanga Cultural Resources (Pechanga) and the Soboba Band of Luiseño Indians (Soboba). The NAHC requested that the EIR discuss Public Resources Code Section 5097.98, Health and Safety Code 7050.5 and codes that discuss the discovery of human remains. The NAHC also recommended early consultation with Native American tribes. Pechanga recommended mitigation measures be added to the EIR and that the City adopt specific procedures and policies concerning protection, preservation and mitigation of sacred places and all cultural resources pertaining to this project. Pechanga further requested their involvement in projects that will impact previously undisturbed soils and during environmental review process and requested the requirement of a Phase I Cultural Resource Assessment for implementing development projects within the PVCC. Additionally, Pechanga requested any study older than 5 years be updated. Soboba requested government to government consultation in accordance with California Senate Bill (SB) 18 and for continuance of lead consulting tribal entity for this project. Soboba also requests their presence during ground disturbing activities. These comments and concerns are incorporated into this section of the DEIR.

In addition to other reference documents, the following references were used in the preparation of this section of the DEIR:

- City of Perris, *City of Perris General Plan, Conservation Element*, July 12, 2005. (Available at www.cityofperris.org/city-hall/general-plan/Conservation_Element_01-08-09.pdf, accessed October 30, 2009.)
- CRM TECH, *Cultural Resources Technical Report, North Perris Industrial Specific Plan, City of Perris, Riverside County, California*, October 25, 2007. (Available as Appendix D.1.)
- CRM TECH, *Paleontological Resources Assessment Report, North Perris Industrial Specific Plan, City of Perris, Riverside County, California*, October 25, 2007. (Available as Appendix D.2.)

Setting

The Perris Valley Commerce Center Specific Plan (PVCC) consists of approximately 3,500 acres located in the North Perris area of western Riverside County. The site is bordered generally by I-215 to the west, March Air Reserve Base and Oleander Avenue to the north, the Perris Valley Storm Channel (PVSC) to the east, and Placentia Avenue to the south. The surrounding area includes the city of Moreno Valley and March Air Reserve Base to the north, the unincorporated community of Mead Valley to the west, and more developed areas of the City of Perris to the south and east.

Current Setting

The project site includes both developed and undeveloped land. Native features in the vicinity have been reshaped by the region's past growth and gradual urbanization, while the project site encompasses a patchwork of residential, commercial and industrial development interspersed with agricultural fields and vacant land. The terrain within the PVCC is relatively level. Elevations range from 1,435 feet above mean sea level (MSL) at the southeastern corner near the PVSC to 1,522 feet MSL at the northwestern corner near March Air Reserve Base, an 87-foot difference in elevation over a distance of 3.5 miles.

The geology of the project site is characterized by igneous and metamorphic crystalline rock, overlain by or outcropping through early Pleistocene alluvial-fan deposits, except along the eastern boundary, where late Pleistocene/Holocene alluvial valley deposits predominate. Sandy loam and silt loam are the primary soil matrices, represented by the Domino, Exeter, Greenfield, Pachappa, and Ramona series of soils with trace amounts of Arlington, Grangeville, Hanford, Monserate, Traver, and Waukena soils.

Vegetation in the project site includes native and introduced flora. The predominant native plant community found in the project site today is that of the Riversidian sage scrub, represented by desert encelia, brittlebush, sagebrush, black sage, white sage, buckwheat, tumbleweeds, foxtails, and cacti. Originally, perennial grasses were found within the Perris Valley, but the project site now features valley grassland communities brought to the area from Europe by early settlers. Most of the flora in the urbanized portions of the project site consists of landscaping plants, such as various domestic trees, flowers, grasses, and shrubbery.

Geologic Setting

The project site is situated in the northern portion of the Peninsular Ranges Province, which is bounded on the north by the Transverse Ranges Province, on the northeast by the Colorado Desert Province, and on the west by the Pacific Ocean. The Peninsular Ranges Province extends southward to the southern tip of Baja California.

The Perris Valley, in which the project lies, is a northwest-southeast trending inland valley between the Lakeview Mountains and the Santa Ana-Elsinore Mountains. The project site is located in the western portion of this valley, more than a mile east of the Gabelon Hills, a high portion of the Perris Structural Block that marks its western edge. The Perris Valley is one of several tectonically controlled valleys within the valley and ridge systems of the Perris Structural Block. These are structurally depressed troughs filled with sediments of upper Pliocene through Recent ages, and the ridges are composed of plutonic igneous rocks, metasedimentary rocks, and late-stage intrusive dikes.

The Perris Block was defined as the region between the San Jacinto and Elsinore-Chino fault zones, bounded on the north by the Cucamonga (San Gabriel) Fault and on the south by a vaguely delineated boundary near the southern end of the Temecula Valley. It is considered to have been active since Pliocene times.

Ethnohistoric Setting

The Perris Valley has long been a part of the homeland of the Luiseño Indians, a takic-speaking people whose territory extended from present-day Riverside to Escondido and Oceanside. Luiseño history, as recorded in traditional songs, tells the creation story from the birth of the first people, the *kaamalam*, to the sickness, death, and cremation of *Wiyoot*, the most powerful and wise one, at Lake Elsinore.

Anthropologists have divided the Luiseño into several autonomous lineages or kin groups, which represented the basic political unit among most southern California Indians. Each Luiseño lineage possessed a permanent base camp, or village, on the valley floor and another in the mountain regions for acorn collection. Luiseño villages were made up of family members and relatives, where chiefs of the village inherited their rank and each village owned its own land. Villages were usually located in sheltered canyons or near year-round sources of fresh water, always near subsistence resources.

Nearly all resources of the environment were exploited by the Luiseño in a highly developed seasonal mobility system. The Luiseño people were primarily hunters and gatherers. They collected seeds, roots, wild berries, acorns, wild grapes, strawberries, wild onions, and prickly pear cacti, and hunted deer, elks, antelopes, rabbits, wood rats, and a variety of insects. Bows and arrows, atlatls or spear throwers, rabbit

sticks, traps, nets, clubs and slings were the main hunting tools. Each lineage had exclusive hunting and gathering rights in their procurement ranges.

It is estimated that when Spanish colonization of Alta California began in 1769, the Luiseño had approximately 50 active villages with an average population of 200 each, although other estimates place the total Luiseño population at 4,000–5,000. Some of the villages were forcefully moved to the Spanish missions, while others were largely left intact. Ultimately, Luiseño population declined rapidly after European contact because of diseases such as smallpox and harsh living conditions at the missions and, later, on the Mexican ranchos, where the native people often worked as seasonal ranch hands.

After the American annexation of Alta California, the large number of non-Native settlers further eroded the foundations of the traditional Luiseño society. During the latter half of the 19th century, almost all of the remaining Luiseño villages were displaced, their occupants eventually removed to the various reservations. Today, the nearest Native American groups of Luiseño heritage live on the Soboba, Pechanga, and Pala Indian Reservations.

Archaeological Setting

It is widely acknowledged that human occupation in what is now the State of California began 8,000–12,000 years ago. In order to understand Native American cultures before European contact, archaeologists have devised chronological frameworks that endeavor to correlate the observable technological and cultural changes in the archaeological record to distinct periods. Unfortunately, none of these chronological frameworks has been widely accepted, and none has been developed specifically for the so-called Inland Empire region of southern California, the nearest ones being for the Colorado Desert and Peninsular Ranges area and for the Mojave Desert.

The development of an overall chronological framework for the region is hindered by the lack of distinct stratigraphic layers of cultural sequences that could be dated by absolute dating methods. Since results from archaeological investigations in this region have yet to be synthesized into an overall chronological framework, most archaeologists tend to follow a chronology adapted from a scheme developed by William J. Wallace in 1955 and modified by others. Although the beginning and ending dates of the different horizons or periods may vary, the general framework of prehistory in this region under this chronology consists of the following four periods:

- Early Hunting Stage (ca. 10,000–6,000 B.C.), which was characterized by human reliance on big game animals, as evidenced by large, archaic-style projectile points and the relative lack of plant-processing artifacts;
- Millingstone Horizon (ca. 6,000 B.C.–A.D. 1,000), when plant foods and small game animals came to the forefront of subsistence strategies, and from which a large number of milling stones, especially heavily used, deep-basin metates, were left;
- Late Prehistoric Period (ca. A.D. 1,000–1,500), during which a more complex social organization, a more diversified subsistence base—as evidenced by smaller projectile points, expedient milling stones and, later, pottery—and regional cultures and tribal territories began to develop;
- Protohistoric Period (ca. A.D. 1,500–1,700s), which ushered in long-distance contact with Europeans and led to the historic period.

Historic Setting

After the beginning of Spanish colonization, what is now the southwestern portion of Riverside County became the first region in the county to be settled by non-Indians. In 1818–1819, Leandro José Serrano established a cattle ranch in the Temescal Valley under a permit issued by Mission San Luis Rey (Jennings

et al. 1993:91). Around the same time, the mission fathers established a granary, a chapel, and a residence for the *majordomo* near the Luiseño village of Temecula. The Perris and San Jacinto Valleys, meanwhile, became part of the loosely defined Rancho San Jacinto, a vast cattle ranch under Mission San Luis Rey, the name of which was first mentioned in mission records in 1821.

Beginning in 1834, during secularization of the mission system, former mission ranchos throughout Alta California were surrendered to the Mexican government, and subsequently divided and granted to various prominent citizens in the province. On the land considered to be part of Rancho San Jacinto, Mexican authorities made three large land grants during the 1840s, including San Jacinto Nuevo y Potrero, which encompasses the eastern portion of the project site. It was granted to Miguel de Pendrorena, a merchant in San Diego, in early 1846, just a few months before the American occupation of California. As elsewhere in southern California during the rancho period, cattle raising was the most prevalent economic activity on these and other nearby land grants, until the influx of American settlers eventually brought an end to this lifestyle in the second half of the 19th century.

In 1882–1883, the Perris Valley received a major boost in its early development when the California Southern Railway was constructed through the area, to be connected to the Santa Fe Railway's nationwide system a few years later. In a scenario repeated frequently in the American West, a string of towns soon emerged along the railroad line. The town of Perris was founded in 1886, and named in honor of Frederick Thomas Perris, the California Southern Railway's chief engineer and superintendent of construction. In 1893, with the creation of Riverside County, Perris was designated as one of the 12 original judicial townships. On May 16, 1911, Perris was incorporated as the sixth city in the county.

Related Regulations

Federal Regulations

National Environmental Policy Act

Pursuant to the National Environmental Policy Act (NEPA), public or private projects undertaken with federal funding, or that are subject to some form of federal approval or issuance of a federal permit, are required to consider the environmental effects that would result from project implementation. Under NEPA, it is the continuing responsibility of the federal government to use all practicable means, to improve and coordinate federal plans, functions, programs, and resources to preserve important historic, cultural, and natural aspects of our national heritage. Cultural resources preservation is included as part of the general policy of environmental protection, and NEPA requires that cultural resources be considered in the preparation of NEPA documents.

Numerous federal laws and regulations protect cultural resources and Native American concerns for such resources. With a few exceptions, many State of California laws and regulations that apply to cultural resources mirror the federal statutes. The National Historic Preservation Act (NHPA) of 1966 set forth national policy for recognizing and protecting historic properties. The NHPA established the National Register of Historic Places, the concept of State Historic Preservation Officers and programs, and the Advisory Council on Historic Preservation (ACHP). Under Section 106 of the NHPA, federal agencies are required to take into account the effects of their undertakings on historic properties and provide the ACHP an opportunity to comment on those undertakings. Historic properties are defined in federal law as those properties that are listed in, or meet the criteria for listing in the National Register of Historic Places. Criteria have been established in order to allow the professional to determine whether the resource is eligible.

Historic and Archaeological Resource Surveys

The National Register of Historic Places (NRHP or National Register) is the nation's official list of cultural resources identified for preservation. Authorized under the NHPA of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate and protect historic and archeological resources. Properties listed in the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

The California Register of Historical Resources (CRHR) includes historic resources of importance in accordance with the following designation criteria:

- associated with events that have made a significant contribution to the broad pattern of local or regional history or the cultural heritage of California or the United States.
- associated with the lives of people important to local, California or national history.
- embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master or possess high artistic values.
- has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or nation.

All properties listed in the NRHP are automatically included in the CRHR.

Façade Easement Donation

A charitable tax deduction for donating a façade easement to a nonprofit or publicly supported organization is available to owners of buildings listed in the NRHP. In exchange for a charitable deduction on Federal income taxes, the property owner authorizes the non-profit organization to review exterior alteration to the building. The non-profit entity thereby assumes responsibility for protecting the historic and architectural integrity of the property. Façade easements are recorded on the property deed in perpetuity.

Antiquities Act of 1906

The only federal law protecting fossil resources on public lands is the Antiquities Act of 1906 (16 United States Code [USC] 431–433). Enacted when Theodore Roosevelt was president, the Antiquities Act was designed to protect nonrenewable fossil and cultural resources from indiscriminate collecting. Specific paleontological sites can be protected under the National Registry of Natural Landmarks (16 USC 461-467), and at least three paleontological Landmarks are known in California. NEPA (42 USC 4321) directs Federal agencies to use all practicable means to "...preserve important historic, cultural, and natural aspects of our national heritage...". It must be noted that Section 106 of the NHPA does not apply to paleontological resources unless they are found in culturally related contexts.

Historic Rehabilitation Tax Credit

A tax credit equal to 20% of the cost of rehabilitation is available to use on properties listed in or determined eligible for the NRHP or a property that contributes to a certified, locally designated district. It can only be used on income-producing properties (e.g., offices, commercial, industrial or agricultural enterprises, rental housing) where rehabilitation is substantial. The property cannot serve exclusively as the owner's private residence. A tax act project requires certification by the National Park Service that the work complies with the Secretary of the Interior's Standards for Rehabilitation.

State Regulations

The California Register of Historic Resources (Public Resources Code Section 5020 et seq.)

State law also protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the State *CEQA Guidelines*. These criteria are nearly identical to those for the NRHP.

The State Office of Historic Preservation (OHP) maintains the CRHR. Properties listed, or formally designated eligible for listing, on the NRHP are nominated to the CRHR and then selected to be listed on the CRHR, as are State Landmarks and Points of Interest.

California Health and Safety Code (Sections 7050.5, 7051, and 7054)

These sections collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the Public Resources Code), as well as the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, treatment of the remains prior to, during and after evaluation, and reburial procedures.

California Public Resources Code Section 5097.98

California Public Resources Code Section 509.98 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. It has been incorporated into Section 15064.5(e) of the State *CEQA Guidelines*.

California Public Resources Code Section 5097.5

California Public Resources Code Section 5097.5 protects, among other things, paleontological sites on State lands. Sections 4306 and 4309 of the California Administrative Code establish authority and processes to protect paleontological resources while allowing mitigation through the permit process. Potential impacts to paleontological resources must be assessed for any project subject to review under CEQA.

Senate Bill 18, California Tribal Consultation Guidelines

The State of California Governor's Office of Planning and Research developed guidelines in order to provide guidance to cities and counties on the process for consulting with Native American Indian tribes during the adoption or amendment of local general plans or specific plans (defined in Government Code §65450 et seq.). SB 18 requires local agencies to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process, thereby providing tribes an opportunity to participate in local land use decisions at an early planning stage. Pursuant to the provisions of SB 18, the City of Perris Planning Department invited the applicable tribes to participate in consultation regarding the proposed project in accordance with the requirements of SB 18 in 2009 and again on April 12, 2010 In their response dated April 27, 2009, the Soboba Band of Luiseño Indians requested further consultation, that proper procedures are taken and requests of the tribe be honored, and that cultural resource monitors be present during any ground disturbing proceedings.

During the preparation of this Draft EIR, the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians requested consultation with the City of Perris in accordance with Senate Bill 18. On January 26, 2011, City staff met with representatives of both tribes to discuss areas of concern. Both tribes expressed the need for early consultation with the tribes by potential developers for sites where

undisturbed and vacant land exists. The City determined that proponents of projects and architects for properties that are vacant, undeveloped, or considered to be sensitive for cultural resources by the City of Perris Planning Division will be encouraged to contact the local Native American tribes (as identified by the California NAHC and the City of Perris) to obtain input regarding the potential for Native American resources to occur at the subject site.

State Historical Building Code

The State Historical Building Code (SHBC) is a State-adopted building code that allows the City to approve reasonable alternatives to the standard building, plumbing, electrical and mechanical requirements for historic buildings. It allows some non-conforming conditions to remain without modification to meet current building standards, and it allows some pliancy in meeting specific requirements in building codes. The City uses the SHBC for qualifying historic resources, at the request of the property owner, to meet code requirements for both interior and exterior rehabilitation.

California Heritage Fund Grant Program

The grant program is funded under the State Neighborhood Parks, Clean Water, Clean Air and Coastal Protection Bond Act of 2000. Grants may be used for acquisition, rehabilitation, restoration or interpretation projects and are available for any product, facility or project designed to preserve a historic resource that is listed or determined eligible for listing in the NHRP or CRHR. Entities that may receive funds are cities, counties, districts and local agencies formed for park purposes, nonprofit organizations, and recognized California Indian Tribes.

Local Regulations

City of Perris General Plan – Conservation Element

Measure IV.A.2 For all projects subject to CEQA, applicants will be required to submit results of an archaeological records search request through the Eastern Information Center, at the University of California, Riverside.

Measure IV.A.3 Require Phase I Surveys for all projects located in areas that have not previously been surveyed for archaeological or historic resources, or which lie near areas where archaeological and/or historic sites have been recorded.

Measure IV.A.4 In Area 1 and Area 2 shown on the Paleontological Sensitivity Map, paleontologic monitoring of all projects requiring subsurface excavations will be required once any excavation begins. In Areas 4 and 5, paleontologic monitoring will be required once subsurface excavations reach five feet in depth, with monitoring levels reduced if appropriate, at the discretion of a certified Project Paleontologist.

City of Perris General Plan Historic Points of Interest

The Perris Valley Historical Association and the Riverside County Office of Historic Preservation have identified historic sites and structures within the City of Perris. All of these structures exist in the Downtown area and are listed in **Table 4.4-A, Historical Sites and Buildings**, below. The Santa Fe Depot was listed in 1994 on the NRHP and is currently home to Perris Valley Historical Museum. The Southern Hotel is listed in the CRHR.

Table 4.4-A, Historical Sites and Buildings

Building/Site	Year Built	Location
Dora Nelson African-American History Museum	~	316 E. Seventh Street
Santa Fe Depot/ Historical Museum	1892	120 W. 4th
Smith Brothers Potato Shed	1930s	3rd and C Streets
Perris City Hall	1925	101 N. D Street
Gymnasium	1930	101 N. D Street
Police Department	1910	101 N. D Street
Recreation Department	1910	120 N. Perris Blvd.
Perris Theatre	1930s	295 S. D Street
Nance Building	1905	318 S. D Street
Mapes General Store	1880s	SE Corner 4th and ?
Mapes-Cummins Home	1890	196 E. 6th Street
First Congregational Church	1900	177 E. 6th Street
Formerly Brun's - Fashion Livery Stable	1900	600 S. "D" Street
Mexico Lindo Cafe	1890s	505 S. "D" Street
Mission Inn Building	1912	502 S. "D" Street
Southern Hotel	1887	455 S. D Street
Formerly Bank of Perris	1904	400 S. D Street
Formerly Robertine Hotel and Boarding	1893	504 and 510 "C" Street
Holloway Home	1913	230 W. 7th Street
A.W. Hook Home	1895	223 W. 7th Street
Merritt/C Kirkpatrick Home	1895	239 W. 7th Street
Morrison Home	1897	303 W. 7th Street
Thompson Home	1900	363 W. 7th Street
J.F. Hook/Stewart Home	1893	650 Park Avenue
Paul/Neely Home	Pre-1900	402 Park Avenue
Shelton/Mitchler/Stewart Home	1908	496 W. 4th Street
Formerly Stationmaster's Home	1891	328 W. 5th Street
Austin/Reese Home	1905	306 W. 5th Street
Boardman Home	1916	270 W. 5th Street
A.W. Metz/Homer Smith Home	1893	400 S. "B" Street
C.R. Stewart Home	1910	326 W. 4th Street
T. Kirkpatrick Home	1910	251 W. 4th Street
Reynold's Home	1905	246 W. 4th Street
Railway/Pinacate Station	1882	2201 S. "A" Street
Rock House	1928	246 Lomita Drive
Red and White Market	~	325 S. "D" Street
John Reynolds/Kingston Home	Late 1880s	SE corner 4th & Perris Blvd.
Harford/Sheldon/Stewart Home	1906	240 W. 4th Street
Hook and Oaks Building	~	7th and "D" Street
Pratt House	~	Old Nuevo Road

Source: *City of Perris Circulation Conservation Element*, Table CN - 2: Historical Sites and Buildings

Design Considerations

No site design measures are incorporated which will lessen impacts related to cultural resources.

Thresholds of Significance

The City of Perris has not established local CEQA significance thresholds and instead, defers to the thresholds of significance identified in Appendix G to the State *CEQA Guidelines*. Based on Appendix G to the State *CEQA Guidelines*, impacts to cultural resources may be considered potentially significant if the project would:

- cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State *CEQA Guidelines*;
- cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the State *CEQA Guidelines*; or
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Environmental Impacts

Threshold: *The project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines.*

Historic background research for the project site was conducted by CRM TECH on the basis of published literature in local and regional history and historic maps of the Perris Valley Area. According to CRM TECHs Eastern Information Center (EIC) record search, since 1974 at least 27 cultural resource surveys have been completed within or partially within the project site, covering approximately 40 percent of the total acreage. The other 60 percent of the project site does not appear to have been surveyed systematically at an intensive level. As a result of the previous surveys, 16 historical/archaeological sites have been discovered within the boundaries of the PVCC project site and recorded into the California Historical Resource Information System (see **Table 4.4-B, Recorded Historical/Archaeological Sites in the Project Site**[1]).

Table 4.4-B, Recorded Historical/Archaeological Sites in the PVCC[1]

Recorded by/Date	Description of Site
Diehl 1994	March Water System No. 2, the Gregory Site, a WWII-era pump station and associated buildings that house two water wells.
Harmon 1982	Former site of the "Liberty Bell Café"
Harmon 1982	Single-story, early ranch house with Queen Anne architectural decorative features
Harmon 1982	J. B. Mayer Ranch, a one-and-a-half story wood-frame ranch house once owned by J. B. Mayer [sic] of Metro-Goldwyn Mayer
Harmon 1982	Former Camp Haan barracks
Harmon 1982	Two metal structures used during WWII at Camp Haan
Harmon 1982	Val Verde Elementary School
Love 1999	An earthen reservoir and an adjoining standpipe

Recorded by/Date	Description of Site
Love 1999	A large standpipe and an associated concrete pad
Love 1999	A segment of a steel pipeline with riveted seams
Love 1999	Remains of a residence
Love 1999	House remains
Goodman and Neves 2000	Segment of the Colorado River Aqueduct
Cotterman 2004	Features and possible structural remains associated with the Perris Indian School
Clifford 2005	A bedrock outcrop with 4 bedrock milling features and 15 grinding surfaces
Strudwick el. Al. 2005	A concrete water reservoir and an electric pump, part of a water conveyance system

[1] Information on the exact locations of these sites is kept confidential as a protective measure.

Additionally, based on the research results of the project site, the area's level of sensitivity for potential "historical resources" appears to range from low to high, depending on the location. Areas that have been developed into residential tracts, light-industrial/ business parks, or retail centers within the past 20-30 years are considered low in sensitivity for both historic-period built-environmental features and archaeological remains. Typically, these areas had been surveyed for cultural resources pursuant to federal, state, or local regulations prior to development, and any potential "historical resources" that were identified had been addressed properly. The areas of low sensitivity are concentrated mainly in the southern half of the project site, comprising approximately 30% of the total acreage.

The remainder of the project site, consisting mostly of agricultural fields, undeveloped land, and older residential neighborhoods, appears to be moderate to high in sensitivity for historical/archaeological resources. These areas have not been disturbed extensively nor surveyed adequately over the past few decades, and some of the built environment features on these properties, such as buildings, structures, or objects, may have reached the 50-year age threshold to be considered potential "historical resources." In addition, subsurface archaeological deposits from both the prehistoric and the historic periods may be present in agricultural fields as well as vacant lots. Without an intensive level, up-to-date field survey, it is impossible to determine the presence or absence of potential "historical resources" on these properties.

Implementation of the PVCC will result in potentially significant impacts. While the proposed PVCC does not propose any specific changes to any identified resources, future implementing development projects will occur in areas that may contain significant cultural resources. Additionally, infrastructure or other public works improvements could result in damage to or demolition of other cultural resources. Although the City has programs and policies to protect and minimize adverse impacts to historical structures and features, the potential remains for significant impacts to these resources to occur as a result of development.

In order to reduce potential impacts to any known and unknown historical resources that may be found during development pursuant to the PVCC to a less than significant level, implementation of mitigation measures **MM Cultural 1, MM Cultural, 3 and MM Cultural 4** is required. Therefore, with adherence to these mitigation measures, the project's potential to cause a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5 of the State *CEQA Guidelines*, is considered **less than significant with mitigation incorporated**.

Threshold: *The project would cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the CEQA Guidelines.*

Table 4.4-B, above, lists the recorded historical/archaeological resources recorded by previous cultural resources surveys within the project site. However, the majority of archaeological sites listed within and outside of the project site consists predominantly of bedrock milling features, such as grinding slicks, mortars, and metates. In some cases, the sites also contain scattered surface artifacts, such as lithic debitage, or midden deposits.

Additionally, CRM TECH conducted field reconnaissance to identify areas that are potentially sensitive for archaeological resources that have yet to be identified. A "windshield" reconnaissance of the former site of the Perris Indian Industrial Training School revealed a vacant parcel of land with bare soil and no standing structures at the location, confirming the existing site record's claim that the compound had been demolished by the 1930s. However, archaeological remains of the school are likely to be present at this site, located on the northeast corner of Morgan Street and Perris Boulevard.

The Conservation Element of City of Perris GP includes the following measures appropriate to preventing changes to significant archaeological resources in the City of Perris:

City of Perris GP – Conservation Element

Measure IV.A.2	For all projects subject to CEQA, applicants will be required to submit results of an archaeological records search request through the Eastern Information Center, at the University of California, Riverside.
Measure IV.A.3	Require Phase I Surveys for all projects located in areas that have not previously been surveyed for archaeological or historic resources, or which lie near areas where archaeological and/or historic sites have been recorded.

While the proposed PVCC does not propose any specific changes to any identified resources, future implementing development and infrastructure projects will occur in areas that may contain significant cultural resources and could result in damage to or demolition of other cultural resources. The Perris GP EIR, which is hereby incorporated herein by reference, determined that implementation of the City of Perris GP, including the Conservation Element Measures above, will reduce the impact on significant archaeological resources to a less than significant level.

Comment letters in response to the NOP for this project (Appendix A) were received from the Soboba Band of Luiseño Indians (dated September 3, 2009) and from the Pechanga Band of Luiseño Indians (dated September 21, 2009). These letters proposed procedures and mitigation measures for addressing potential impacts upon cultural resources. These measures have been incorporated into the below-listed mitigation measures.

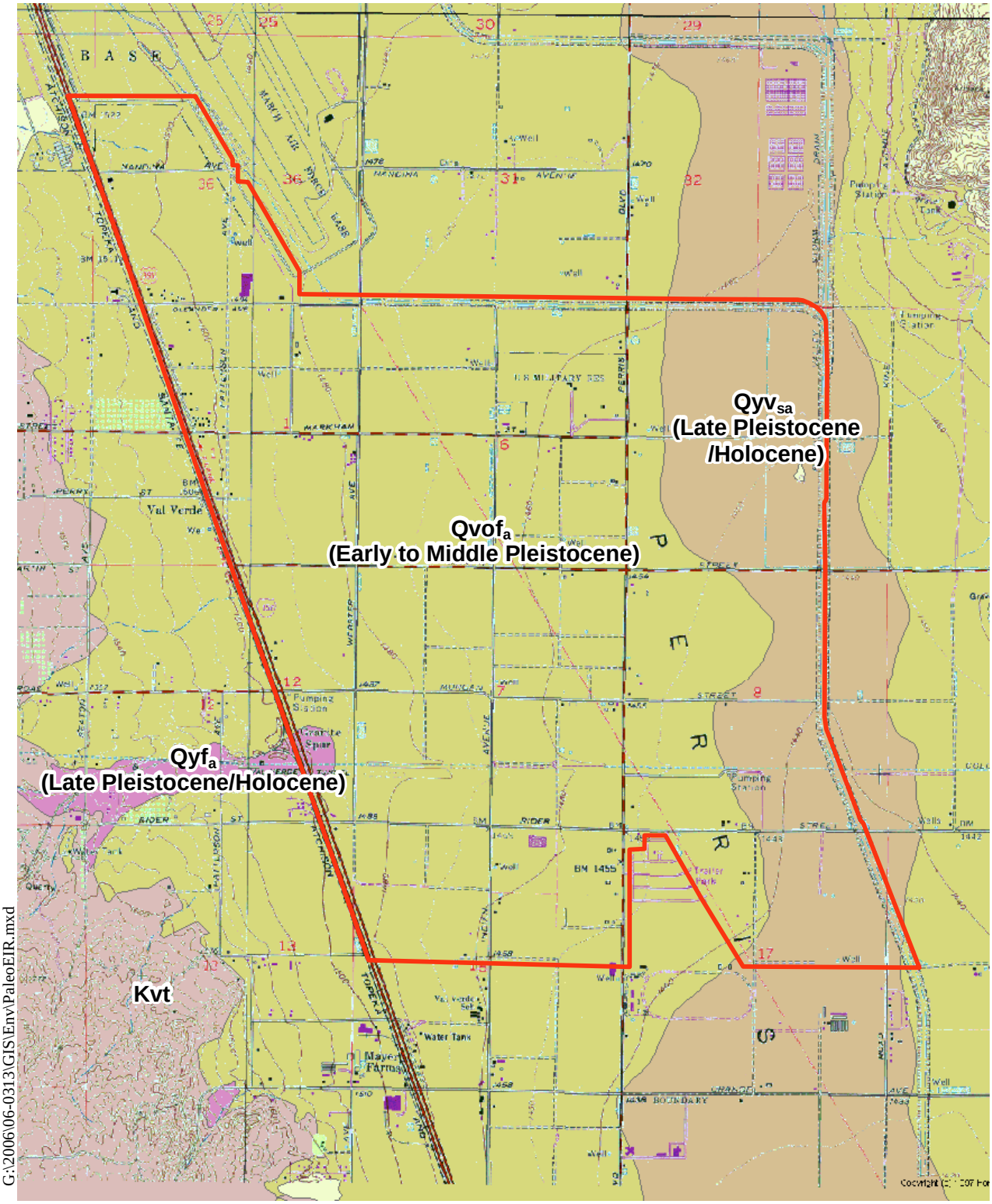
Although potential impacts upon archaeological resources will be less than significant, implementation of mitigation measures **MM Cultural 1 through MM Cultural 4** will further reduce the less than significant level of potential impacts. With adherence to these mitigation measures, the project's potential to cause a substantial adverse change in the significance of an archaeological resource, as defined in Section 15064.5 of the State *CEQA Guidelines*, will be **less than significant with mitigation incorporated**.

Threshold: *The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

A *Paleontological Resources Assessment Report* for the project site was produced by CRM TECH between July and October 2007. The purpose of this report was to provide the City of Perris with the necessary information and analysis to facilitate paleontological resources considerations in the planning process and in formulating municipal policies. In order to inventory previously identified paleontological resources and prepare a sensitivity assessment of the project site, CRM TECH initiated records searches at the San Bernardino County Museum and the Natural History Museum of Los Angeles County, conducted a literature search, and carried out a reconnaissance-level field survey.

The results of these research procedures indicate that the majority of the geology within the project site consists of igneous and metamorphic crystalline rock overlain by or outcropping through early Pleistocene alluvial-fan deposits. An exception to this is along the eastern boundary and around Granite Spur on the western edge of the project site, where late Pleistocene/Holocene alluvial valley deposits predominate (**see Figure 4.4-1, Geologic Map**). These late Pleistocene/Holocene deposits have a low potential for containing significant nonrenewable fossil remains. However, these younger alluvial sediments, whose thickness is largely unknown, rest directly on top of older Pleistocene sediments, which have a high potential to contain significant nonrenewable paleontologic resources.

Based on these findings, the *Paleontological Resources Assessment Report* has assigned various portions of the PVCC project site different levels of sensitivity for paleontological resources, ranging from low to high depending on the location and the sediments that are present. The eastern edge of the PVCC along the PVSC and the area around Granite Spur on the western edge are considered to be low in sensitivity on the surface, but the older Pleistocene sediments buried at an unknown depth in these areas have a high sensitivity. The remainder of the PVCC site is considered highly sensitive for paleontological resources except for the top two or three feet of disturbed soil.



Source: USGS

0 1,000 2,000 3,000
Feet

Figure 4.4-1
Geologic Map of the Perris Valley Commerce Center

The Conservation Element of City of Perris GP includes the following measure appropriate to preventing directly or indirectly destroying a unique paleontological resource in the City of Perris:

City of Perris GP – Conservation Element

Measure IV.A.4 In Area 1 and Area 2 shown on the Paleontological Sensitivity Map, paleontologic monitoring of all projects requiring subsurface excavations will be required once any excavation begins. In Areas 4 and 5, paleontologic monitoring will be required once subsurface excavations reach five feet in depth, with monitoring levels reduced if appropriate, at the discretion of a certified Project Paleontologist.

Ground-disturbing activities in the fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Therefore, any activities resulting from implementation of the proposed PVCC, including construction-related and earth-disturbing actions could damage or destroy fossils in rock units. As with archaeological resources, paleontological resources are generally considered to be historical resources, as defined in State *CEQA Guidelines* Section 15064.5(a)(3)(D). Consequently, damage or destruction to these resources could cause a significant impact.

City of Perris GP Conservation Element Measure IV.A.4, above, is in place to protect paleontological resources. Compliance with this measure and existing regulations would reduce impacts to paleontological resources to a less than significant level by ensuring paleontological resources would be subject to scientific recovery and evaluation, which would ensure that important scientific information that could be provided by these resources would not be lost.

Additionally, in order to ensure the project's potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature are less than significant, the proposed project shall comply with mitigation measures **MM Cultural 3 and MM Cultural 4**, listed below. Therefore, impacts will be **less than significant with mitigation incorporated.**

Proposed Mitigation Measures

An EIR is required to describe feasible mitigation measures which could minimize significant adverse impacts (State *CEQA Guidelines*, Section 15126.4. Mitigation measures were evaluated for their ability to eliminate or reduce the potential significant adverse impact upon cultural resources to less than significant levels or to otherwise reduce less than significant cultural resource impacts.

MM Cultural 1: Prior to the consideration by the City of Perris of implementing development or infrastructure projects for properties that are vacant, undeveloped, or considered to be sensitive for cultural resources by the City of Perris Planning Division, a Phase I Cultural Resources Study of the subject property prepared in accordance with the protocol of the City of Perris by a professional archeologist[1] shall be submitted to the City of Perris Planning Division for review and approval. The Phase I Cultural Resources Study shall determine whether the subject implementing development would potentially cause a substantial adverse change to any significant paleontological, archaeological, or historic

[1] For the purpose of this measure, the City of Perris considers professional archaeologists to be those who meet the United States Secretary of the Interior's standards for recognition as a professional, including an advanced degree in anthropology, archaeology, or a related field, and the local experience necessary to evaluate the specific project. The professional archaeologist must also meet the minimum criteria for recognition by the Register for Professional Archaeologists (RPA), although membership is not required.

resources. The Phase I Cultural Resources Study shall be prepared to meet the standards established by Riverside County and shall, at a minimum, include the results of the following:

1. Records searches at the Eastern Information Center (EIC), the National or State Registry of Historic Places and any appropriate public, private, and tribal archives.

2. Sacred Lands File record search with the NAHC followed by project scoping with tribes recommended by the NAHC.

3. Field survey of the implementing development or infrastructure project site.

The proponents of the subject implementing development projects and the professional archaeologists are also encouraged to contact the local Native American tribes (as identified by the California NAHC and the City of Perris) to obtain input regarding the potential for Native American resources to occur at the project site.

Measures shall be identified to mitigate the known and potential significant effects of the implementing development or infrastructure project, if any. Mitigation for historic resources shall be considered in the following order of preference:

1. Avoidance.

2. Changes to the structure provided pursuant to the Secretary of Interior's Standards.

3. Relocation of the structure.

4. Recordation of the structure to Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) standard if demolition is allowed.

Avoidance is the preferred treatment for known significant prehistoric and historical archaeological sites, and sites containing Native American human remains. Where feasible, plans for implementing projects shall be developed to avoid known significant archaeological resources and sites containing human remains. Where avoidance of construction impacts is possible, the implementing projects shall be designed and landscaped in a manner, which will ensure that indirect impacts from increased public availability to these sites are avoided. Where avoidance is selected, archaeological resource sites and sites containing Native American human remains shall be placed within permanent conservation easements or dedicated open space areas.

The Phase I Cultural Resources Study submitted for each implementing development or infrastructure project shall have been completed no more than three (3) years prior to the submittal of the application for the subject implementing development project or the start of construction of an implementing infrastructure project.

MM Cultural 2: If the Phase I Cultural Resources Study required under **MM Cultural 1** determines that monitoring during construction by a professional archaeologist is needed for the implementing development project, the project proponent shall retain a professional archaeologist prior to the issuance of grading permits. The task of the archaeologist shall be to verify implementation of the mitigation measures identified in the approved Phase I Cultural Resources Study and to monitor the initial ground-

altering activities[2] at the subject site for the unearthing of previously unknown archaeological and/or cultural resources. Selection of the archaeologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the archaeologist has been approved by the City.

The archaeological monitor shall be responsible for maintaining daily field notes, a photographic record, and reporting all finds in a timely manner. The archaeologist shall also be equipped to record and salvage cultural resources that may be unearthed during initial ground-altering activities. The archaeologist shall be empowered to temporarily halt or divert construction equipment to allow recording and removal of the unearthed resources.

Depending on the nature of the artifacts, the handling will differ. However, it is understood that all artifacts with the exception of human remains and related grave goods or sacred objects belong to the property owner. All artifacts discovered at the development site shall be inventoried and analyzed by the professional archaeologist. If any artifacts of Native American origin are discovered, a Native American observer of Luiseño descent shall be asked to help analyze the Native American artifacts for identification as everyday life and/or religious or sacred items, cultural affiliation, temporal placement, and function, as deemed possible. All items found in association with Native American human remains will be considered grave goods or sacred in origin and subject to special handling (see **MM Cultural 4**, below). The remainder of the Native American artifact assemblage will be prepared in a manner for curation and the archaeological consultant will deliver the materials to an accredited curation facility approved by the City of Perris within a reasonable amount of time.

Non-Native American artifacts will be inventoried, assessed, and analyzed for cultural affiliation, personal affiliation (prior ownership), function, and temporal placement. Subsequent to analysis and reporting, these artifacts will be subjected to curation or returned to the property owner, as deemed appropriate.

Once ground-altering activities have ceased or the professional archaeologist determines that monitoring activities are no longer necessary, monitoring activities may be discontinued following notification to the City of Perris Planning Division.

A report of findings, including an itemized inventory of recovered artifacts, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered artifacts. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to archaeological and/or cultural resources.

MM Cultural 3: Prior to grading for projects requiring subsurface excavation that exceeds five (5)feet in depth, proponents of the subject implementing development projects shall retain a professional paleontologist to verify implementation of the mitigation measures identified in the approved Phase I Cultural Resources Study and to monitor the subsurface excavation that exceed five (5) feet in depth. Selection of the paleontologist shall be subject to the approval of the City of Perris Planning Manager and no grading activities shall occur at the site until the paleontologist has been approved by the City.

Monitoring should be restricted to undisturbed subsurface areas of older alluvium, which might be present below the surface. The paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The paleontologist shall also remove samples of sediments which are likely to

[2] For the purpose of this measure, ground-altering activities include, but are not limited to, debris removal, vegetation removal, tree removal, grading, trenching, or other site preparation activities. Initial ground-altering activities refer to the first time that the existing materials are altered by construction-related activities. Materials that have already been disturbed by construction-related activities do not require subsequent monitoring.

contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall have the power to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens.

Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved. Specimens shall be identified and curated and placed into an accredited repository (such as the Western Science Center or the Riverside Metropolitan Museum) with permanent curation and retrievable storage.

A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to paleontological resources.

MM Cultural 4: In the event that human remains (or remains that may be human) are discovered at the implementing development project site during grading or earthmoving, the construction contractors shall immediately stop all activities in the immediate area of the find. The project proponent shall then inform the City of Perris Planning Division immediately and retain a professional archaeologist to assess the find. In accordance with the California Health and Safety Code, the City of Perris will contact the County Coroner's office within 24 hours and the coroner will be permitted to examine the remains.

If the coroner determines that the remains are of Native American origin, the coroner will report to the NAHC and the Commission will identify the "Most Likely Descendent" (MLD).[3] Despite the affiliation of any Native American observers at the site, the Commission's identification of the MLD will stand. The disposition of the remains will be determined in consultation with the City of Perris, the project proponent, and the MLD. The City of Perris will be responsible for the final decision, based upon input from the various stakeholders.

If the human remains are determined to be other than Native American in origin, but still of archaeological value, the remains will be recovered for analysis and subject to curation or reburial at the expense of the project proponent. If deemed appropriate, the remains will be recovered by the coroner and handled through the Coroner's Office.

Coordination with the Coroner's Office will be through the City of Perris and in consultation with the various stakeholders.

The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations will be documented by the consulting archaeologist in conjunction with the various stakeholders.

[3] The "Most Likely Descendent" ("MLD") is a reference used by the California Native American Heritage Commission to identify the individual or population most likely associated with any human remains that may be identified within a given project area. Under California Public Resources Code section 5097.98, the Native American Heritage Commission has the authority to name the MLD for any specific project and this identification is based on a report of Native American remains through the County Coroner's office. In the case of the City of Perris, the Native American Heritage Commission may identify any Luiseño descendent, but generally names the Soboba or Pechanga bands of Mission Indians (both Luiseño populations) and alternates between the two groups. The City of Perris will recognize any MLD identified by the Native American Heritage Commission without giving preference to any particular population. In cases where the Native American Heritage Commission is not tasked with the identification of a Native American representative, the City of Perris reserves the right to make an independent decision based upon the nature of the proposed project.

Summary of Environmental Effects After Mitigation Measures Are Implemented

The proposed mitigation measures will ensure that any unknown buried historical, cultural, archaeological or paleontological resources that are discovered during development of the proposed project are protected, evaluated and recovered as determined by the appropriate qualified expert. With the above mitigation measures implemented, impacts to unknown potentially significant cultural resources will be reduced to a **less than significant level**.

4.5 Geology and Soils

The focus of the following analysis is related to the potential impacts from seismic-related ground failure, including liquefaction and soil instability. Potential impacts related to fault zones, ground-shaking risks, landslides, soil erosion, expansive and inadequately supportive soils were all found to be less than significant in the Initial Study/NOP prepared for this project (Appendix A).

In addition to other documents, the following references were used in the preparation of this section of the Draft EIR:

- City of Perris, *Perris General Plan, Safety Element*, October 25, 2005. (Available at the City of Perris and at http://www.cityofperris.org/city-hall/general-plan/Safety_Element.pdf, accessed January 19, 2010.)
- Eastern Municipal Water District, *West San Jacinto Groundwater Basin Management Plan 2008 Annual Report*, October, 2009. (Available at www.emwd.org/news/pubs_sj-subbasin.html, accessed October 30, 2009.)
- Hogle-Ireland, Inc., *Draft Environmental Impact Report, City of Perris General Plan 2030,* October 2004. (Available at the City of Perris and at www.cityofperris.org/city-hall/general-plan.html, accessed January 19, 2010.)
- U. S. Department of Agriculture. Soil Conservation Service, *Soil Survey, Western Riverside Area, California,* November 1971. (Available at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx, accessed October 30, 2009.)

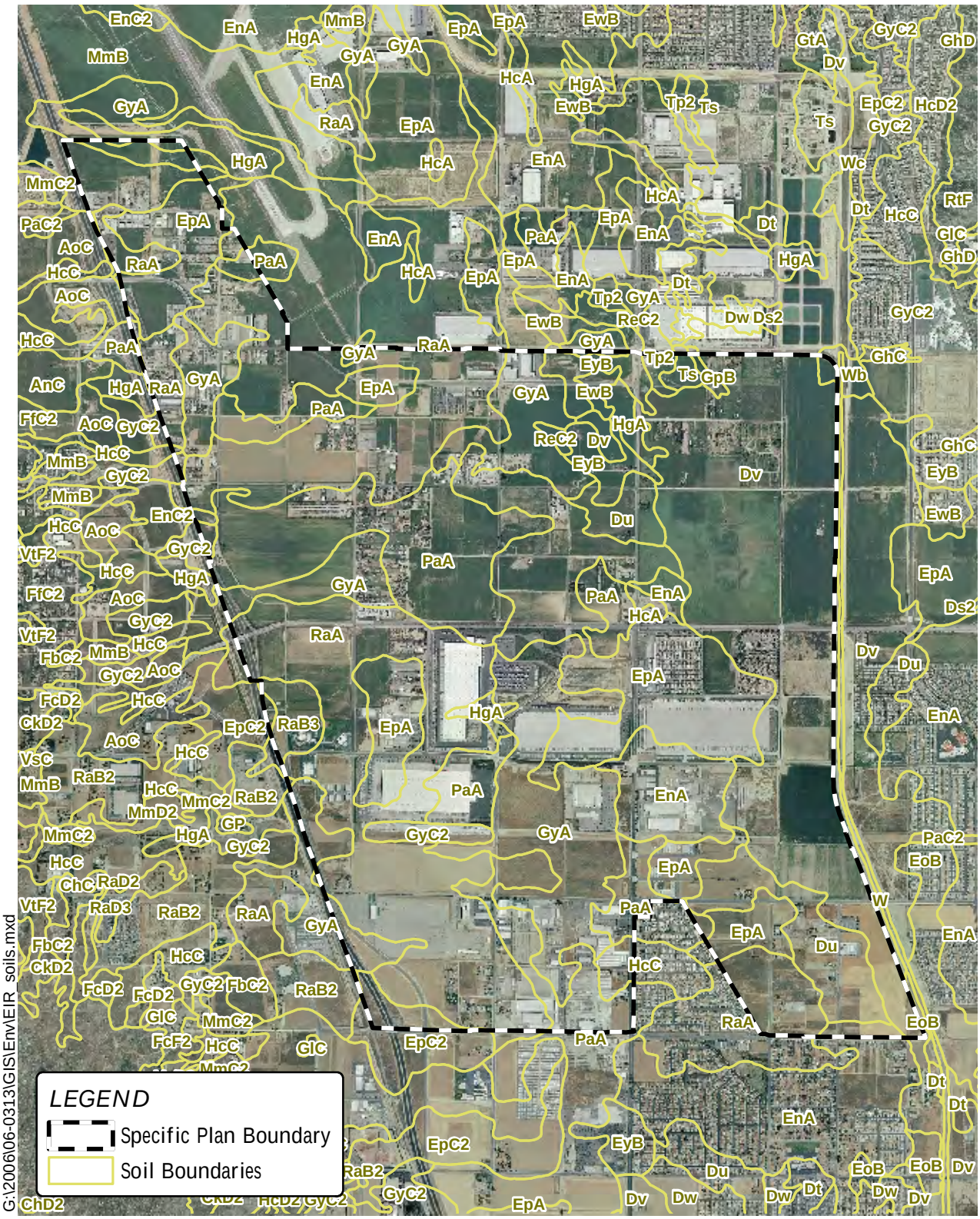
Setting

Site Geology and Soils

The Perris Valley Commerce Center Specific Plan (PVCC) site is located within the Perris Block within the Peninsular Ranges geomorphic province of southern California. Fault zones in this range are characterized by a northwest-southeast trending which separate elongated structural blocks. The nearest known active fault zones are the San Jacinto fault zone located approximately 6.5 miles to the northeast.

The Perris Block is underlain with rocks of the Peninsular Ranges batholiths. This contains a very large mass of crystalline igneous rocks of Cretaceous age and pre-batholithic metasedimentary and metavolcanic rocks of older ages.

The project site is underlain predominately by younger alluvium. The alluvium consisted primarily of silty sand and well graded sand with some sandy silt and poorly graded sand. According to the 1971 Soil Survey for Western Riverside County, there are eighteen soil types within the project site (**Figure 4.5-1, Soils Map**). The soil types are: Du, Domino silt loam; Dv, Domino silt loam, saline-alkali; EnA, Exeter sandy loam, 0 to 2 percent slopes; EpA, Exeter sandy loam, deep, 0 to 2 percent slopes; EwB, Exeter very fine sandy loam, 0 to 5 percent slopes; EyB, Exeter very fine sandy loam, deep, 0 to 5 percent slopes; GpB, Grangeville sandy loam, drained, saline-alkali, 0 to 5 percent slopes; GyA, Greenfield sandy loam, 0 to 2 percent slopes; GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded; HcA, Hanford coarse sandy loam, 0 to 2 percent slopes; HcC, Hanford coarse sandy loam, 2 to 8 percent slopes; HgA, Hanford fine sandy loam, 0 to 2 percent slopes; PaA, Pachappa fine sandy loam, 0 to 2 percent slopes; RaA, Ramona sandy loam, 0 to 2 percent slopes; RaB3, Ramona sandy loam, 0 to 5 percent severely eroded; ReC2, Ramona very fine sandy loam, 0 to 8 percent slopes, eroded; Tp2, Traver loam fine sand, eroded; and Ts, Traver fine sandy loam, saline-alkali.



Sources: USDA NRCS SSURGO, 2008;
Eagle Aerial, 2010.

Figure 4.5-1
Soils Map

Seismic Hazards

People and structures in the project area are subject to risks from hazards associated with earthquakes. Seismic activities pose two types of hazards: primary and secondary. Primary hazards include ground rupture, ground shaking, ground displacement, and subsidence. Secondary hazards include ground failure, liquefaction, water waves, movement on nearby faults, dam failure, and fires. Potential seismic hazards affecting the project site include ground liquefaction and subsidence.

The major geologic hazard associated with ground shaking is liquefaction and ground failure. Liquefaction occurs when ground shaking causes water saturated soils to become fluid and lose strength. Liquefaction occurs when three general conditions exist: 1) shallow groundwater (50 feet or less below ground level), 2) low-density silty or fine sandy soils, and 3) high intensity ground motion. Liquefaction hazards are particularly significant along watercourses.

Related Regulations

Uniform Building Code

The Uniform Building Code (UBC) is published by the International Conference of Building Officials. It forms the basis of about half the State building codes in the United States, including California's, and has been adopted by the State legislature together with Additions, Amendments, and Repeals to address the specific building conditions and structural requirements in California.

California Building Code

California Code of Regulations (CCR), Title 24, Part 2, the California Building Code (CBC), provides minimum standards for building design in the State, consistent with or more stringent than UBC requirements. Chapter 16 of the CBC deals with General Design Requirements, including regulations governing seismically resistant construction (Chapter 16, Division IV) and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapters 18 and A33 of the CBC deal with site demolition, excavation, foundations, retaining walls, and grading, including requirements for seismically-resistant design, foundation investigation, stable cut and fill slopes, and drainage and erosion control. The project will comply with current State requirements regarding seismic design. Local codes are permitted to be more restrictive than Title 24, but are required to be no less restrictive.

Seismic Hazards Mapping Act

California Geological Survey (CGS) provides guidance with regard to seismic hazards. Under CGS *Seismic Hazards Mapping Act*, seismic hazard zones are identified and mapped to assist local governments in land use planning. The intent of this Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. In addition, CGS Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidance for the evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations.

City of Perris Ordinance No. 1230

The City of Perris Development Services Department provides technical expertise in reviewing and enforcing the Building, Mechanical, Plumbing, Electrical and Fire Codes established in City of Perris Ordinance No. 1230. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public.

City of Perris GP – Safety Element

The following are applicable policies from the City of Perris GP – Safety Element related to damage due to seismic incidents:

Policy I.E:	All development will be required to include adequate protection from damage due to seismic incidents
Measure I.E.1	Require geological and geotechnical investigations by State-licensed professionals, in areas with potential for earthquake-induced liquefaction, landsliding, other slope instability, or settlement as part of the environmental and development review process.
Measure I.E.2	Require implementation of mitigation measures identified in such investigations mentioned above, prior to the issuance of grading and building permits.
Measure I.E.3	Require engineered slopes to be designed to resist seismically induced failure, in accordance with state-of-the art engineering parameters and analytical methods.
Measure I.E.4	Require cut and fill transition lots to be over-excavated, and require complete maximum variation of fill depths beneath structures, to mitigate the potential of seismically induced differential settlement.
Measure I.E.5	Adopt and enforce the most current version of the California Building Code (CBC).
Measure I.E.6	Reconstruction of structures intended for human occupancy that have been damaged or destroyed by failed slopes will be prohibited; unless a geological report prepared by a State licensed geologist shows that remedial measures will improve the unstable slope conditions sufficiently to make the site suitable for redevelopment.
Measure I.E.7	Geotechnical studies will be required for all projects to determine the potential for damage from expansive soils, and to define appropriate mitigation measures to address the damage potential that is identified.
Measure I.E.8	The City will modify the Liquefaction Susceptibility Map as new data is obtained. Modifications to the map shall be conducted by or under the direction of a professional geologist.

Design Considerations

The current California Building Code (CBC), as adopted by the City of Perris, provides guidelines and parameters which help to reduce effects of ground shaking produced by regional seismic events. The project proponent shall perform the seismic design in accordance with the most recent edition of the CBC and the requirements of the City of Perris.

In order to reduce the potential for adverse differential settlement within the project area, the underlying sub-grade soil shall be prepared in such a manner that a uniform response to the applied loads is achieved. Precise grading requirements and quantities will be determined at the grading permit stage and shall comply with any requirements set forth by the City.

Thresholds of Significance

The City of Perris has not established local CEQA significance thresholds and instead, defers to the thresholds of significance identified in Appendix G to the State *CEQA Guidelines*. Based on Appendix G to the State *CEQA Guidelines*, impacts related to Geology and Soils may be considered potentially significant if the proposed project would:

- expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction; or
- be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Environmental Impacts

Threshold: *Expose people or property to substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.*

According to the Safety Element of the City of Perris GP and the General Plan EIR (Perris GP EIR) the subject site is located within an area of very high potential of ground shaking. (Perris GP Safety Element, p. 4 and Perris GP EIR, p. VI-10) However, no active or potentially active faults are known to exist in the project area. In addition, the project area does not lie within a designated State of California Fault Zone. The closest known active fault is the San Jacinto fault zone, located approximately 6.5 miles to the northeast (see **Figure 4.5-2, Earthquake Faults**). The proposed project is located in southern California and, therefore, it is subject to strong seismic ground shaking by a nearby or distant strong earthquake. However, all structures proposed shall be designed and constructed to meet the current California Building Code (CBC) standards.

Liquefaction is a phenomenon in which loose, water saturated, granular soils temporarily behave similarly to a fluid when subjected to high intensity ground shaking. As stated above, liquefaction occurs when three general conditions exist: 1) shallow groundwater, 2) low-density silty or fine sandy soils, and 3) high intensity ground motion. The project site is located in an area with shallow ground water susceptible sediments ranging from low to very high to hazard-potential for liquefaction and low to moderate hazard-potential for liquefaction of deep groundwater susceptible segments (see **Figure 4.5-3, Liquefaction Potential**).

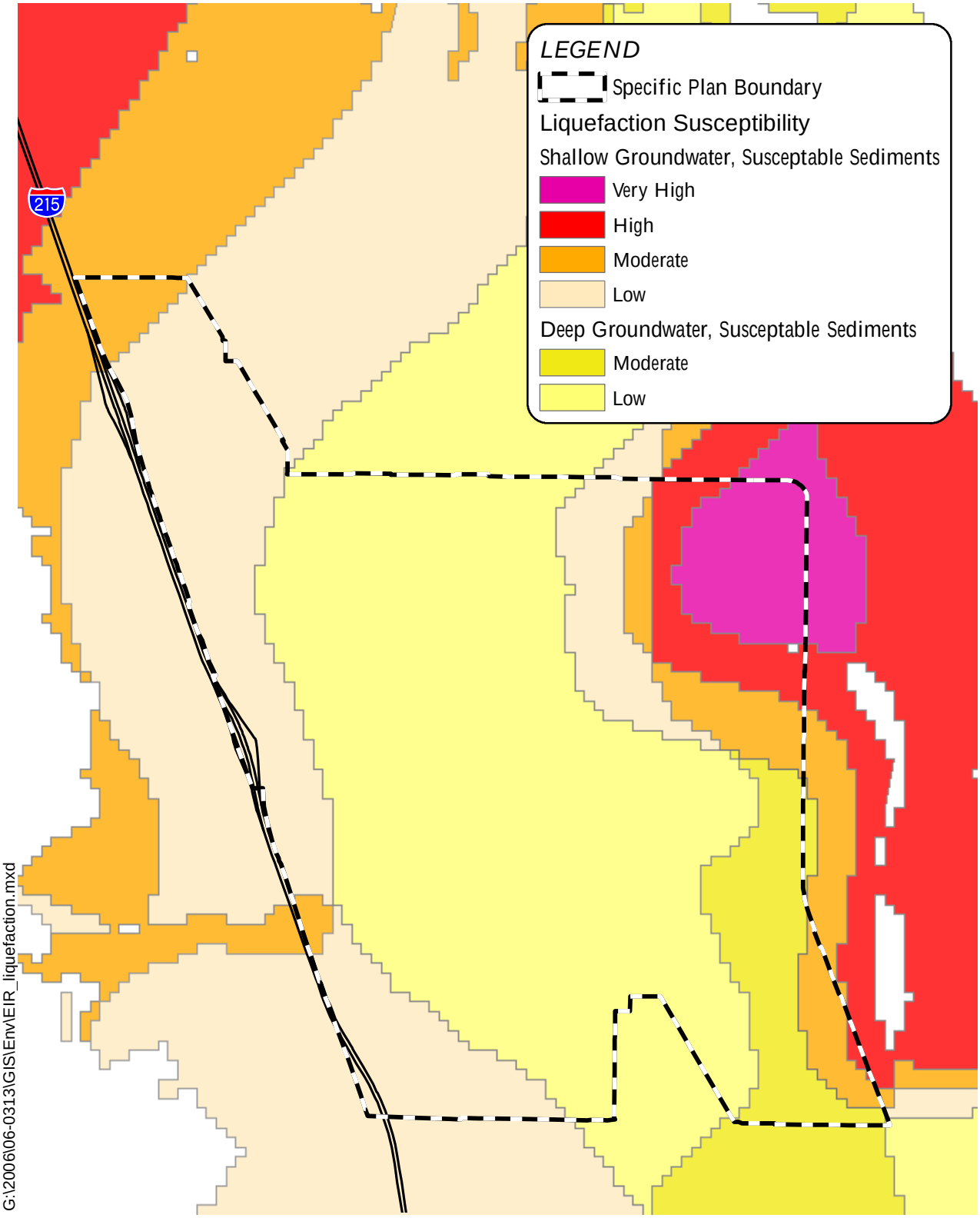
Site specific geotechnical studies are the only practical and reliable way of determining the specific liquefaction potential of a specific site; however, a determination of general risk potential can be provided based on soil type and depth of groundwater. As indicated by the West San Jacinto Groundwater Basin Plan 2008 Annual Report, groundwater level data for the Perris North subbasin shows that groundwater within is found at depths ranging from 2.4 to 226.7 feet below ground level. The Perris GP Safety Element states that groundwater within the project area lies at depths in excess of 100 feet below the surface (Perris GP Safety Element, p. 9). Groundwater is relatively deep throughout the project area with the exception of the northeastern corner which has, according to **Figure 4-5.3**, shallow groundwater susceptible sediments ranging from very high to low liquefaction susceptibility.

The PVCC is conceptual in nature and design is in the preliminary stage. Site-specific geotechnical reports are required (per City of Perris GP Safety Element Implementation Measure I.E.1) in areas potentially susceptible to liquefaction as part of the environmental and development review process. This implementing measure is implemented through compliance with the below-listed mitigation measure **MM Geo 1**.

Sources: Riverside County, 2011
(from RCIP, 2003); Eagle Aerial, 2010.

0 2 4 Miles

Figure 4.5-2
Earthquake Faults



Source: Riverside County, 2009
(Envicom Corp., 1976)

Figure 4.5-3
Liquefaction Potential

The proposed project will result in potentially significant impacts. However, with implementation of mitigation measure **MM Geo 1**, the project will not expose people or structures to potential adverse effects related to seismic-related ground failure, including liquefaction. Therefore, impacts are considered to be **less than significant with mitigation incorporated.**

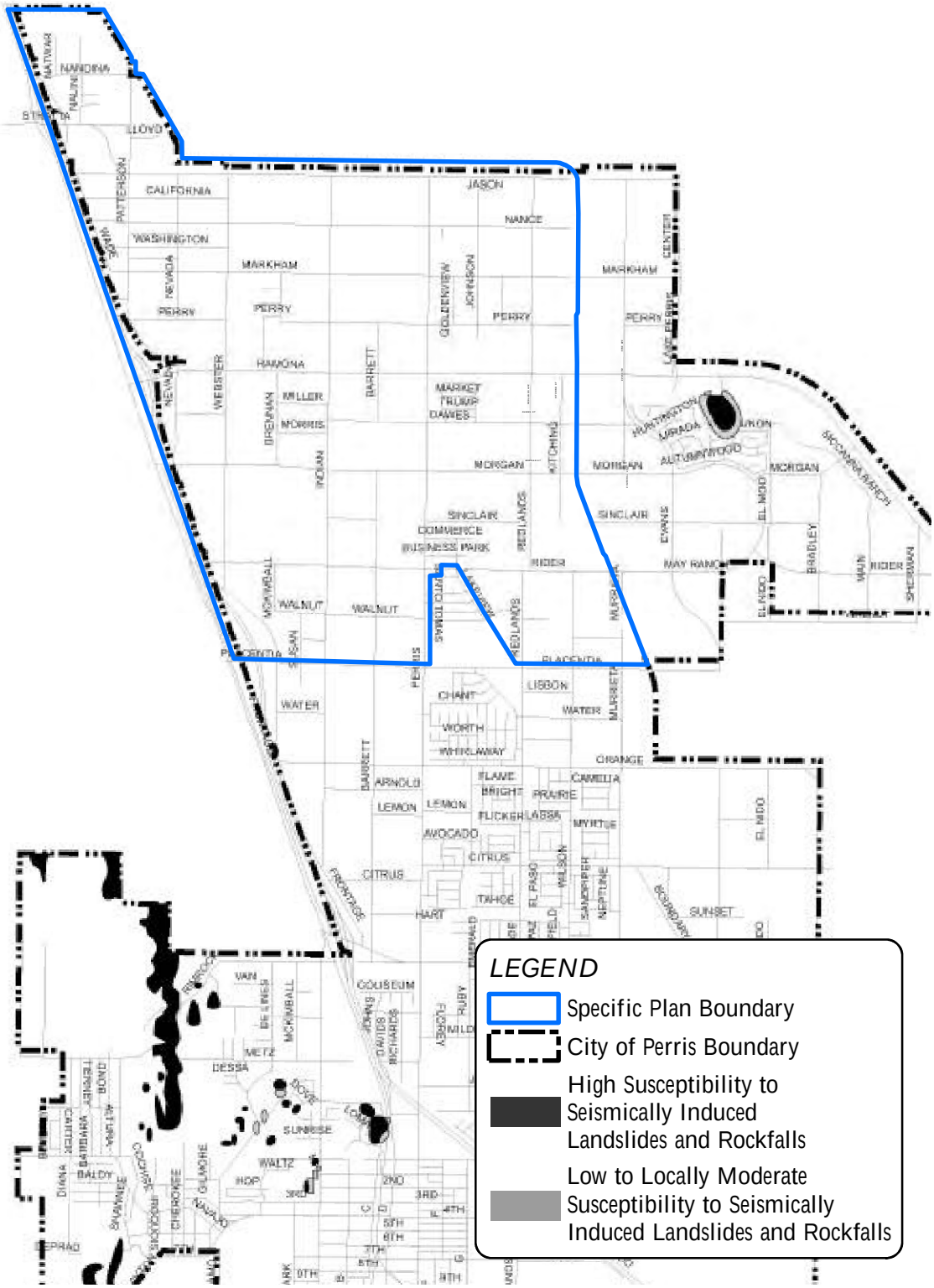
Threshold: *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.*

Alluvial soils are present throughout the Perris Valley, and generally throughout the entire project site. These alluvial soils are derived from sediments deposited by the San Jacinto River, and are expected to underlay the site to depths of five to more than 200 feet. Alluvial soils can be unstable in that they can be prone to liquefaction, lateral spreading, collapse, subsidence, and compressibility. Lateral spreading is associated with liquefaction and is a phenomenon where soil moves downslope on a liquefied substrate of relatively large extent. The mass moves toward an unconfined area, such as a descending slope or stream-cut bluff. Lateral spreading is known to have occurred on slope gradients as gentle as one degree. The dominant mode of movement is lateral extension accompanied by shear or tensile fractures. The failure in a lateral spread event is caused by liquefaction, the process whereby saturated, loose, cohesionless sediments (usually sands and silts) are transformed from a solid into a liquefied state. As previously noted, three conditions must be present for liquefaction to occur: 1) shallow groundwater, 2) low-density silty or fine sandy soils, and 3) high intensity ground motion.

The proposed project will result in potentially significant impacts. Information provided in EMWD's West San Jacinto Groundwater Basin Management Plan indicates that groundwater in the vicinity of the project is located at depths ranging from 2.4 to 226.7 feet below ground surface. Based upon current management plans for the water basin, water levels are not expected to rise significantly above current levels. Based on these groundwater conditions, liquefaction and lateral spreading has the possibility of occurrence within the project area. However, with the implementation of mitigation measure **MM Geo 1**, the impacts are considered less than significant.

Collapse refers to a soil settling under its own weight when saturated with water. Overexcavation and replacement with compacted fill reduces potential adverse impacts related to collapse within the development. Incorporation of mitigation measure **MM Geo 1** will assure that any impacts from soil instability will be reduced to **less than significant** levels.

The PVCC project area is not located in an area prone to slope instability (see **Figure 4.5-4, Slope Instability**). Therefore, the project area is not susceptible to geologic instability that would result in on- or off-site landslides. **No impacts are expected.**



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Source: City of Perris General Plan, 2005

Figure 4.5-4
Slope Instability

Proposed Mitigation Measures

An EIR is required to describe feasible mitigation measures which could minimize significant adverse impacts (State *CEQA Guidelines*, Section 15126.4). Mitigation measures were evaluated for their ability to eliminate or reduce potential adverse impacts related to geology and soils to less than significant levels. The following mitigation measure will be implemented by new development projects within the PVCC to reduce potential impacts to less than significant levels:

MM Geo 1: Concurrent with the City of Perris' review of implementing development projects, the project proponent of the implementing development project shall submit a geotechnical report prepared by a registered geotechnical engineer and a qualified engineering geologist to the City of Perris Public Works/Engineering Administration Division for its review and approval. The geotechnical report shall assess the soil stability within the implementing development project affecting individual lots and building pads, and shall describe the methodology (e.g., overexcavated, backfilled, compaction) being used to implement the project's design.

Summary of Environmental Effects After Mitigation Measures Are Implemented

Impacts regarding management of both the liquefaction and soil instability risk to the development of the PVCC project area are addressed by City of Perris GP Safety Element Implementation Measures I.E.1 through I.E.7. The proposed PVCC project will adhere to the requirements of Implementation Measures I.E.1 through I.E.7, the California Building Code and City of Perris Ordinance No. 1230. Impacts related to soil instability and seismic-related ground failure, including liquefaction, are considered **less than significant** through compliance with regulatory requirements and with implementation of **MM Geo 1**.

4.6 Hazards and Hazardous Materials

The focus of the following analysis is related to the potential impacts from the routine transport, use, or disposal of hazardous materials; reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment; hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or, if located within an airport land use plan or within two miles of a public airport or public-use airport, result in a safety hazard for people residing or working in the project area. Potential impacts related to being located on a site which is included on a list of hazardous materials sites; safety hazards for people residing or working in the project area, if located within the vicinity of a private airstrip; impairing the implementation of or physically interfering with an adopted emergency response or evacuation plan; and the exposure of people or structures to a significant loss, injury or death involving wildland fires were all found to be less than significant in the Initial Study/NOP prepared for this project (Appendix A).

In response to the NOP, comment letters were received from the Department of the Air Force (DOAF), the State Department of Toxic Substance Control (DTSC), the Val Verde Unified School District (VVUSD), the Riverside County Airport Land Use Commission (ALUC), the City of Riverside Planning Department, the March Joint Powers Authority (MJPA), and the State of California Department of Transportation (CALTRANS) Department of Aeronautics.

- The DOAF recommended coordination between the project applicant and MARB to ensure that no avigation easements are violated. Additionally, the DOAF requested adherence to federal height restrictions and limitations in construction materials.

- DTSC requests that the EIR identify current or historic uses that may result in the release of hazardous wastes and contaminated sites, as well as a mechanism to initiate any required investigation and/or remediation for any contaminated sites.

- The VVUSD recommends that they be apprised of any changes to traffic flows that might affect health, safety and welfare of students and that development within their jurisdiction pay appropriate development fees prior to issuance of building permits.

- ALUC commented that all legislative cases including the proposed project will need to be submitted to ALUC for review.

- The City of Riverside Planning Department requested that EIR provide consideration to alternatives to all residential land use designations in order to promote the development of more appropriate land uses to protect long term viability of MARB. It also requested that the EIR discuss impacts of proposed projects to MARB and compliance of developments standards to allowable densities and intensities.

- MJPA requested the EIR analyze the potential of moving portions of buildings with the greatest concentration of people away from the extended centerline of the runway and that the EIR identify the existing ALUC policy requiring the conveyance of avigation easements for areas within 1986 Airport Influence Area.

- CALTRANS requests that consideration be given to compatible land uses in the vicinity of an airport, and that planned height of buildings, antennas and other objects be checked with respect to Federal Aviation Regulations Part 77 and the PVCC incorporate policies restricting heights of these structures.

These comments and concerns are incorporated into this section of the EIR. In addition to other documents, the following references were used in the preparation of this section of the DEIR:

- California Department of Transportation, Division of Aeronautics, *2002 California Airport Land Use Planning Handbook.* (Available at http://www.dot.ca.gov/hq/planning/aeronaut/documents/ALUPHComplete-7-02rev.pdf, accessed April 16, 2010.)
- City of Perris, *City of Perris General Plan 2030,* July 12, 2005. (Available at the City of Perris and at www.cityofperris.org/city-hall/general-plan.html, accessed November 18, 2009.)
- Hogle-Ireland, Inc., *Draft Environmental Impact Report, City of Perris General Plan 2030*, October 2004. (Available at the City of Perris and at http://www.cityofperris.org/city-hall/general-plan/General_Plan_2030.pdf, accessed November 18, 2009.)
- Riverside County Airport Land Use Commission, *Riverside County Airport Land Use Plan*, April 26, 1984. (Available at http://www.rcaluc.org/filemanager/plan/old//Riverside%20County.PDF, accessed April 16, 2010.)
- Riverside County Airport Land Use Commission, *Staff Report for the Airport Land Use Commission (ALUC) Development Review, File No. ZAP 1063MA09*, March 25, 2010. (Available at the City of Perris Planning Department.)
- March Air Reserve Base United States Air Force, *Air Installation Compatible Use Zone (AICUZ) Study*, 1998. (Available at http://www.marchjpa.com/docs_forms/aicuz1998.pdf, accessed June 3, 2011.)
- March Air Reserve Base United States Air Force, *Citizen's Brochure for the 452 Air Mobility Wing Air Installation Compatible Use Zone Study*, August 2005. (Available at http://www.marchjpa.com/docs_forms/aicuz2005.pdf, accessed April 16, 2010.)
- Mead & Hunt and Coffman Associates, Inc., *Riverside County Airport Land Use Compatibility Plan Document*, October 14, 2004. (Available at www.rcaluc.org/plan_new.asp, accessed April 16, 2010.)

Setting

The PVCC project area and its surroundings are in transition from agricultural land uses to a mix of commerce, industrial, and business park uses. The PVCC site comprises approximately 3,500 gross acres within the City of Perris. The site is located adjacent to the east side of I-215 and the west side of the Perris Valley Storm Channel (PVSC), south of the March Air Reserve Base (MARB) and Riverside County Flood Control District Channel, and north of Placentia Street.

At this time, a large portion of the proposed PVCC area is undeveloped land currently used for agriculture. The other portions contain some existing development including warehouse/distribution facilities, neighborhood commercial, smaller-scale industrial facilities, a rural residential community, and a mobile home subdivision. Val Verde High School is located at 972 Morgan Street, between Nevada Road and Webster Avenue. The surrounding area includes the city of Moreno Valley and MARB to the north; the unincorporated community of Mead Valley west of Interstate 215; and more developed areas of the City of Perris to the south and east.

There is one airport located within proximity to the PVCC boundaries, MARB. In the 1990s, the federal government ceased or reduced military operations at several military bases throughout the United States. The bases were "realigned" for civilian use and/or military reserve uses. Subsequent to the base realignment process in 1996, March Air Force Base (MAFB) became MARB, and portions of the former MAFB were reserved for use as a commercial airport. The March Joint Powers Authority (JPA) is a public entity created

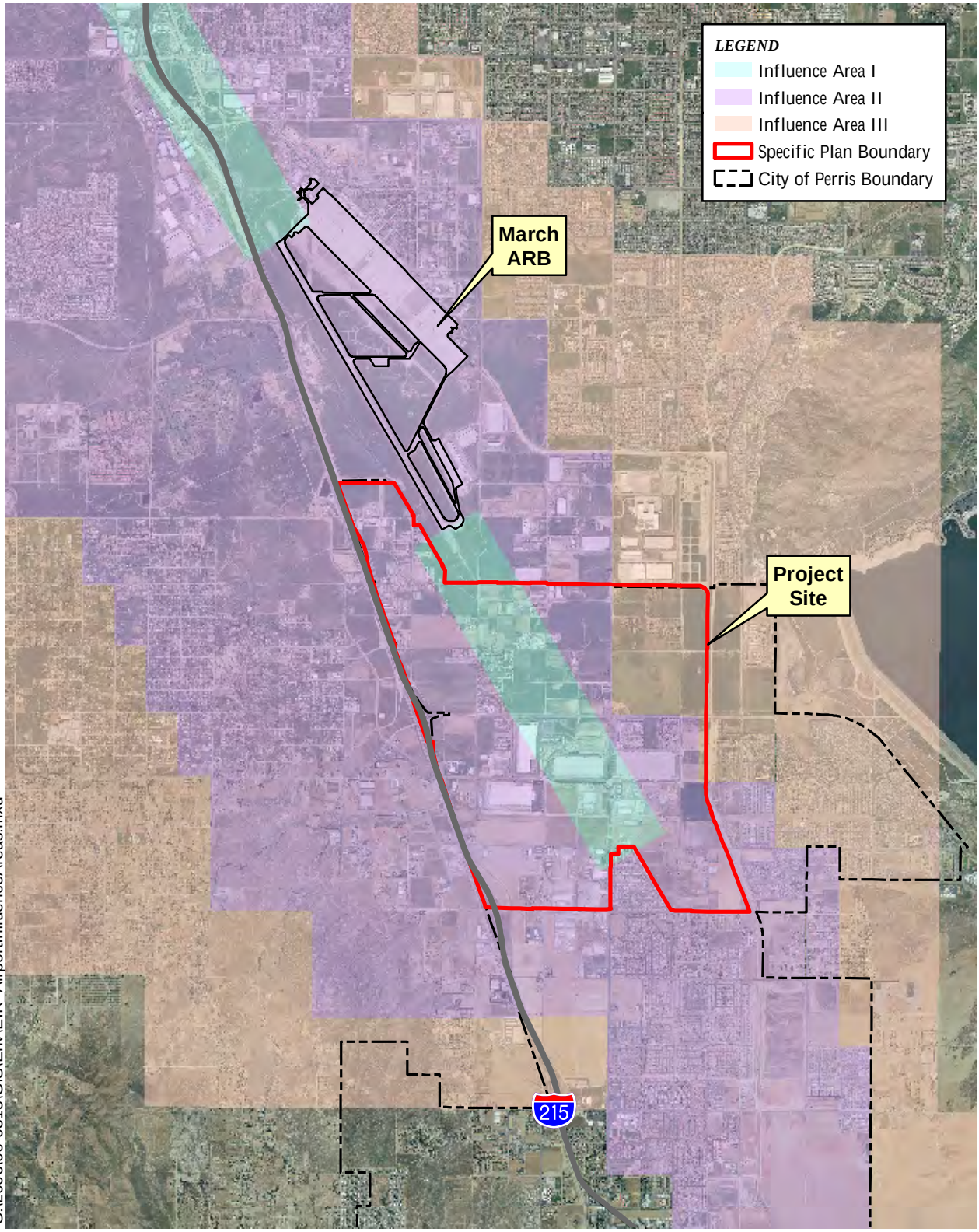
for the purpose of addressing the use, reuse, and joint use of realigned MAFB, including conversion and operation of the commercial airport, March Global Port. The four individual public entities that cooperatively formed the JPA are the cities of Perris, Moreno Valley and Riverside, and the County of Riverside. The JPA Commission includes members of the Riverside County Board of Supervisors and members of the Perris, Moreno Valley and Riverside City Councils.

The 2005 update of the MARB Air Installation Compatibility Use Zone (AICUZ) Study summarized current and forecast aircraft activity at MARB. The AICUZ study states that there are 40,813 annual current military and civilian aircraft operations, with a total of 69,600 military, civilian and other aircraft operations forecast for MARB. Each arrival (landing) and departure (takeoff) is counted as a separate operation and closed pattern operations in which the aircraft conducts a "touch-and-go" landing (or a low approach and departure) are counted as two operations. Military aircraft based at MARB include KC-10, KC-135, C-141, and C-17 aircraft. Transient military aircraft operations, consisting of a variety of aircraft, include aircraft arriving and departing MARB, operations by aircraft traveling through the area, and training operations conducted by aircraft based at other locations. Military-related civil operations include contract cargo flights for delivery of aircraft parts and maintenance supplies and contract passenger flights

In addition to the AICUZ, Airport Influence Area boundaries around MAFB were adopted by the County of Riverside Airport Land Use Commission (ALUC) in May, 1986 (**Figure 4.6-1, March Air Reserve Base Influence Areas**), and became part of the County's Airport Land Use Plan (ALUP). The ALUP has not been updated since the base realignment process in the mid-1990s and does not reflect changes in aircraft operations or aircraft types.

Influence Area I outlines the area beneath heaviest air traffic volumes. Noise levels are highest in these zones. High risk and sensitive land uses are prohibited in Influence Area I, where residential uses are limited to areas not in the actual flight path and areas where aircraft have gained sufficient altitude so as to no longer pose a relative safety threat. At MARB, Influence Area I is co-extensive with the AICUZ Accident Potential Zones 1 and 2, and the Clear Zone.

Influence Area II encompasses larger land areas. Residential development is to be limited to one dwelling unit per each two and one half acres. Agricultural, industrial, and commercial uses are permitted. The boundaries follow general flight paths, and coincide with areas where aircraft would be turning and applying or reducing power.



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Sources: County of Riverside, 2010;
Eagle Aerial, 2010.

Figure 4.6-1
March ARB Influence Areas

0 1 2 3 Miles

Airport Safety Concerns

Safety is a factor in the interaction between airports and nearby land uses in three distinct ways:

- Protecting people and property on the ground.
- Minimizing injury to aircraft occupants.
- Preventing creation of hazards to flight.

Each of these concerns needs to be addressed in airport land use compatibility plans. The nature of each is summarized in the following discussion.

Protecting People and Property on the Ground

Protecting people and property on the ground from potential consequences of near-airport accidents is a fundamental land use compatibility objective. To accomplish this, some form of restrictions on land use is essential. Land use characteristics are the most important factors to consider in safety compatibility criteria. The potential severity of an off-airport accident is highly dependent upon the nature of the land use at the accident site. For the purposes of evaluating the relative risks presented by different land uses, three characteristics are most important.

- **Intensity of Use** – The most direct means of limiting the potential consequences of an off-airport aircraft accident is to limit the intensity of use. Intensity of use is measured in terms of the number of people which the development can attract per acre. This measurement service is a common denominator among various types of nonresidential uses. Except for certain especially risk-sensitive uses, as noted below, the degree of safety compatibility is usually considered the same for any two land uses of similar usage intensities.
- **Residential versus Non-residential Functions** – Residential land uses are typically measured in dwelling units per acre, rather than people per acre. This is principally a practical measure to simplify implementation. However, residential uses are also normally afforded a comparatively higher degree of protection than non-residential uses. That is, for a given location, higher occupancy levels are permitted for non-residential uses than residential uses.
- **Sensitive Uses** – Certain other types of land uses are also commonly regarded as requiring special protection from hazards such as potential aircraft accidents. These uses fall into two categories:
    1. *Low Effective Mobility Occupancies*: Society normally seeks a high degree of protection for certain groups of people, especially children and the infirm. A common element among these groups is inability, either because of inexperience or physical limitations, to move out of harm's way. Among the types of land uses regarded as particularly risk-sensitive are elementary and secondary schools, day care centers, hospitals and nursing homes.
    2. *Hazardous Materials*: Functions, such as above-ground storage of large quantities of flammable materials or other hazardous substances which could substantially contribute to the severity of an aircraft accident if they were to be involved in one.

Minimizing Injury to Aircraft Occupants

In accidents involving an aircraft that is out of control as it descends, the character of the land uses below are not likely to have a significant effect on the survivability of the crash. However, some aircraft mishaps involve situations in which the aircraft is descending, often without power, but otherwise under control. If the aircraft has sufficient altitude, the pilot has some choice as to where to attempt an emergency landing. Under these circumstances, the pilot of a disabled aircraft will, if possible, direct the aircraft toward some form of open land when an off-airport emergency landing is inevitable.

This propensity forms the premise behind the primary form of land use control intended to minimize the severity of injury to aircraft occupants in the event of an off-airport emergency landing. Specifically, some amount of useful open land should be preserved in the vicinity of airports.

Preventing Creations of Hazards to Flight

Unlike the preceding land use characteristics which can only affect the consequences of an aircraft accident (for better or worse), hazards to flight can be the cause of an accident. Hazards to flight fall into three basic categories:

- Obstructions to airspace required for flight to, from, and around an airport
- Wildlife hazards
- Other forms of interference with safe flight, navigation, or communication

Related Regulations

Hazardous Materials

A number of federal, state, and local laws have been enacted to regulate the management of hazardous materials. Implementation of these laws and management of hazardous materials are regulated independently of the CEQA process through programs administered by various agencies at the federal, state, and local levels. An overview of the key hazardous materials laws and regulations that apply to the proposed project are provided below.

Federal and state regulations govern the renovation and demolition of structures where materials containing lead and asbestos are present. These requirements include: Part 61, Subpart M of the Code of Federal Regulations (pertaining to asbestos) and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development (HUD).

Federal

Several federal agencies regulate hazardous materials. These include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Applicable federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). In particular, Title 49 of the CFR governs the manufacture of packaging and transport containers, packing and repacking, labeling, and the marking of hazardous materials transport. Some of the major federal laws and issue areas include the following statutes:

- Resource Conservation and Recovery Act (RCRA) – hazardous waste management
- Hazardous and Solid Waste Amendments Act (HSWA) – hazardous waste management
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – cleanup of contamination
- Superfund Amendments and Reauthorization Act (SARA) – cleanup of contamination
- Emergency Planning and Community Right-to-Know (SARA Title III) – business inventories and emergency response planning

The EPA is the primary federal agency responsible for the implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to state and local environmental regulatory agencies.

State

Primary state agencies with jurisdiction over hazardous chemical materials management are the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB). Other state agencies involved in hazardous materials management are the Department of

Industrial Relations (State OSHA implementation), Office of Emergency Services (OES-California Accidental Release Prevention implementation), Department of Fish and Game (CDFG), Air Resources Board (CARB), Caltrans, State Office of Environmental Health Hazard Assessment (OEHHA-Proposition 65 implementation) and the California Integrated Waste Management Board (CIWMB). The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol (CHP) and Caltrans. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulation.

Hazardous chemical and biohazardous materials management laws in California include the following statutes:

- *Hazardous Materials Management Act* – business plan reporting
- *Hazardous Waste Control Act* – hazardous waste management
- *Safe Drinking Water and Toxic Enforcement Act of 1986* (Prop 65) – releases of and exposure to carcinogenic chemicals
- *Hazardous Substances Act* – cleanup of contamination
- Hazardous Waste Management Planning and Facility Siting (*Tanner Act*)
- Hazardous Materials Storage and Emergency Response
- *California Medical Waste Management Act* – medical and biohazardous wastes

State regulations and agencies pertaining to hazardous materials management and worker safety which are applicable to the project are described below:

California Environmental Protection Agency

The California EPA (Cal/EPA) has broad jurisdiction over hazardous materials management in the state. Within Cal/EPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

Investigation and Cleanup of Contaminated Sites

The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and RWQCB are the two primary state agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and state laws and regulations that are administered at the local level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses. The standards identify approaches to determine if a release of hazardous wastes/substances exists at a site and delineates the general extent of contamination; estimates the potential threat to public health and/or the environment from the release, and provides an indicator of relative risk; determines if an expedited response action is required to reduce

an existing or potential threat; and completes preliminary project scoping activities to determine data gaps and identifies possible remedial action strategies to form the basis for development of a site strategy.

Airports

Federal Aviation Administration

Land use safety guidance from the Federal Aviation Administration (FAA) is limited to the immediate vicinity of the runway, the runway protection zones at each end of the runway, and the protection of navigable airspace. The FAA criteria apply only to property controlled by the airport proprietor. It has no authority over off-airport land uses.

The emphasis in FAA safety criteria is upon the runway surface and the areas immediately adjoining it. Standards are established which specify ground surface gradients for areas adjacent to runways and acceptable location and height of aeronautical equipment placed nearby.

Runway protection zones (RPZs) are trapezoidal-shaped areas located at ground level beyond each end of a runway. The dimensions of RPZs vary depending upon the type of landing approach available at the airport (visual, non-precision, or precision) and characteristics of the critical aircraft operating at the airport (weight and approach speed). Ideally, each runway protection zone should be clear of all objects. The FAA's *Airport Design* advisory circular strongly recommends that airports own this property outright or to obtain easements sufficient to control the land. Even on portions of the RPZs not under airport control, the FAA recommends that churches, schools, hospitals, office buildings, shopping centers, and other places of public assembly, as well as fuel storage facilities be prohibited. Beyond the runway protection zones, the FAA has no specific safety-related land use guidance other than airspace protection.

Airspace Protection

Part 77 of the Federal Aviation Regulations (FAR), *Objects Affecting Navigable Airspace*, establishes standards for determining obstructions to navigable airspace and the effects of such obstructions on the safe and efficient use of that airspace. The regulations require that the FAA be notified of proposed construction or alteration of objects (whether permanent, temporary, or of natural growth) if those objects would be of a height which exceeds FAR Part 77 criteria.

The Part 77 regulations define a variety of imaginary surfaces at certain altitudes around airports. The Part 77 surfaces include the primary surface, approach surface, transitional surface, horizontal surface, and conical surface. Collectively, the Part 77 surfaces around an airport define a bowl-shaped area with ramps sloping up from each runway end. The Part 77 standards are not absolute height restrictions, but instead identify elevations at which structures may present a potential safety problem. Penetrations of the Part 77 surface generally are reviewed on a case-by-case basis.

The FAA has additional guidelines regarding protection of airport airspace, which are set forth in other FAA documents. In general, these criteria specify that no use of land or water anywhere within the boundaries encompassed by FAR Part 77 should be allowed if it could endanger or interfere with the landing, take off, or maneuvering of an aircraft at an airport (FAA-1987). Specific characteristics to be avoided include creation of electrical interference with navigational signals or radio communication between the airport and aircraft, lighting which is difficult to distinguish from airport lighting, glare in the eyes of pilots using the airport, smoke, or other impairments to visibility in the airport vicinity, and uses which attract birds and create bird strike hazards.

State of California Regulations

Similar to regulations at the federal level, California state laws and regulations provide few specifics regarding airport land use safety compatibility. Available guidance is found in two primary locations, the State Aeronautics Act and the State Education Code.

The Aeronautics Act (Public Utilities Code, Section 21001 et seq.) provides for the right of flight over private property, unless conducted in a dangerous manner or at altitudes below those prescribed by federal authority. The Act gives the State Department of Transportation (Caltrans) and local governments the authority to protect the airspace defined by FAR Part 77 criteria. The act prohibits any person from constructing a structure or permitting any natural growth of a height that would constitute a hazard to air navigation unless a permit is obtained from Caltrans. No permit is required if it is determined that the structure or growth is not a hazard to aviation. Typically, this has been interpreted to mean that no penetration of FAR Part 77 imaginary surfaces is permitted without a finding by the FAA that the object would not constitute a hazard to air navigation.

The State Aeronautics Act also created the requirement for an Airport Land Use Commission (ALUC) in each county and established statewide requirements for the conduct of airport land use compatibility planning. State statutes require that, once an ALUC has adopted or amended an airport land use compatibility plan, the county (where it has land use jurisdiction within the airport influence area) and any affected cities must update their General Plans and any applicable specific plans to be consistent with the ALUC's plan (Government Code, Section 65302.3). The *California Airport Land Use Planning Handbook* is published by the Caltrans Division of Aeronautics to support and amplify the State regulations. The most recent *California Airport Land Use Planning Handbook* was published in January 2002 and, as required by CEQA Section 21096, was used as a technical resource in the preparation of this DEIR.

The State Education Code (Section 17215) requires proposed school sites within two miles of an airport to be evaluated by the State Department of Education and Caltrans. If Caltrans makes an unfavorable determination regarding the proposed school site, no state or local funds can be used for site acquisition or building construction on that site.

City of Perris General Plan

The City of Perris is currently participating as a member of a multi-jurisdictional committee working with the "March Operations Assurance Task Force" to resolve inconsistencies between ALUP policies and restrictions and the land development policies and standards of affected local jurisdictions. Policies and Implementation Measures in Perris GP are intended to reduce impacts associated with airport safety hazards to acceptable levels:

City of Perris GP – Safety Element

Goal I	Reduce risk of damage to property or loss of life due to natural or man-made disasters
Policy I.D	Consult the AICUZ Land Use Compatibility Guidelines and ALUP, Airport Influence Area development restrictions when considering development project applications.
Measure I.D.1	Participate in March Operations Assurance Task Force to resolve inconsistencies between local land use regulations and AICUZ and ALUP policies.
Measure I.D.2	Continue to notify March Air Reserve Base of new development project applications and consider their input prior to making land use decisions.

Measures I.D.3 Development on property within Perris Valley Airport Interim Influence Area 1 shall be subject to prior determination, in consultation with the ALUC, and subsequent adoption of appropriate use and development restrictions necessary to minimize the potential for loss of life and property.

Additionally, the State Aeronautics Act (California Public Utilities Code, Section 21670 et seq.) created the requirement for an Airport Land Use Commission (ALUC) in each county and establishes statewide requirements for the conduct of airport land use compatibility planning. State statutes require that, once an ALUC has adopted or amended an airport land use compatibility plan, the county (where it has land use jurisdiction within the airport influence area) and any affected cities must update their General Plans and any applicable specific plans to be consistent with the ALUC's plan (Government Code, Section 65302.3). The California Airport Land Use Planning Handbook is published by the California Department of Transportation Division of Aeronautics and its purpose is to support and amplify the State regulations.

Design Considerations

The PVCC includes design standards and guidelines (PVCC Guidelines) which will be used by the City of Perris to evaluate implementing development projects subject to discretionary review within the PVCC boundaries.

PVCC Section 4.2.1, General On-Site Project Development Standards and Guidelines define prohibited uses that could affect MARB, and states:

The following uses shall be prohibited within the Specific Plan:

- Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
- Any use which would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport.
- Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which otherwise may affect safe air navigation within the area
- Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- Any use which would obstruct Federal Aviation Regulations, Part 77 Conical Surface. (This is also a standard of condition of approval on City projects).

The PVCC Guidelines include an "avigation easement" requirement with regards to MARB, which states that, "Prior to recordation of a final map, issuance of building permits, or conveyance to an entity exempt from the Subdivision Map Act, whichever occurs first, the land owner shall convey an avigation easement to March Air Reserve Base/March Global Port through the Airport Land Use Commission (ALUC)..." and "provide and disclose a 'Notice of Airport in Vicinity' to building tenants."

With regards to waste hauling, the PVCC Guidelines state that, "Construction and other waste disposal shall be hauled to a city-approved facility." The City of Perris currently contracts with CR&R for this municipal service.

Section 12.0, Airport Overlay Zone, of the PVCC Specific Plan establishes prohibited uses in airport overlay zones, which includes a "Clear Zone," "Accident Potential Zone 1 (APZ I)," and "Accident

Potential Zone 2 (APZ II)." Additionally, Section 12.0 establishes compatibility with MARB requirements, which includes provisions regarding an "Avigation Easement" standard, "Noise Mitigation" standards, "Land Use and Activity" standards, F.A.R. Part 77 compliance, "Notice of Airport in Vicinity" disclaimers for future tenants, lighting standards, as well as standards that define height restrictions based upon locale.

Thresholds of Significance

The City of Perris has not established local CEQA significance thresholds and instead, defers to the thresholds of significance identified in Appendix G to the State *CEQA Guidelines*. Based on Appendix G to the State *CEQA Guidelines*, impacts related to hazards and hazardous materials may be considered potentially significant if the proposed project would:

- create a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or
- for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, would the project result in a safety hazard for people residing or working in the project area.

Environmental Impacts

Threshold: *Create a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials.*

While there is a possibility that new commercial and industrial uses that are proposed within the PVCC could transport, use, store, or dispose of hazardous materials, specific development projects are not associated with the proposed PVCC, and it is impossible to quantify the potential future amount of hazardous materials. However, with additional development, an increase in the potential for hazards associated with hazardous materials and waste would likely occur.

Exposure of persons to hazardous materials could occur in the following manners: improper handling or use of hazardous materials or hazardous wastes during construction or operation of future developments, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. The types and amounts of hazardous materials would vary according to the nature of the activity. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that could present a hazard.

Whether a person exposed to a hazardous substance would suffer adverse effects depends upon a complex interaction of factors that determine the effects of exposure to hazardous materials: the exposure pathway (the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form (e.g., liquid, vapor) and characteristics (e.g., toxicity) of the material; the frequency and duration of exposure; and the individual's unique biological characteristics such as age, gender, weight, and general health.

Although the overall quantity of hazardous materials and waste generated in the project area could increase as a result of implementation of the proposed PVCC, all new implementing development and infrastructure projects that handle or use hazardous materials would be required to comply with the

regulations, standards, and guidelines established by the EPA, the State, and City of Perris related to storage, use, and disposal of hazardous materials.

Both the federal and state governments require all businesses that handle more than a specified amount of hazardous materials to submit a business plan to a regulating agency. Specifically, any new business that meets the specified criteria must submit a full hazardous materials disclosure report that includes an inventory of the hazardous materials generated, used, stored, handled, or emitted; and emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. The plan needs to identify the procedures to follow for immediate notification to all appropriate agencies and personnel in the event of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all company emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

As a result of oversight by the appropriate federal, state, and local agencies, and compliance with applicable regulations related to the handling and storage of hazardous materials by all implementing development and infrastructure projects, the risk of the public's potential exposure to hazardous substances is considered **less than significant.**

Threshold: *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment.*

The United States Department of Transportation (USDOT) Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the *Code of Federal Regulations*, and implemented by Title 13 of the CCR.

The transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire, or explosion. It is possible that licensed vendors could bring some hazardous materials to and from commercial and industrial sites in the project area as a result of the projects constructed pursuant to the proposed PVCC. However, appropriate documentation for all hazardous waste that is transported in connection with specific project-site activities would be provided as required for compliance with existing hazardous materials regulations codified in Titles 8, 22, and 26 of the California Code of Regulations, and their enabling legislation set forth in Chapter 6.95 of the *California Health and Safety Code*. In addition, specific project-site developers are required to comply with all applicable Federal, State, and local laws and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste, including but not limited to Title 49 of the *Code of Federal Regulations.*

Compliance with the applicable federal and state laws related to the transportation of hazardous materials, would reduce the likelihood and severity of accidents during transit, thereby impacts would be **less that significant**.

Hazardous materials are required to be stored in designated areas designed to prevent accidental release to the environment. The California Building Code (CBC) requirements prescribe safe accommodations for materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. Compliance with all applicable federal and state laws related to the storage of hazardous materials would maximize containment and provide for prompt and effective clean-up if an accidental release occurs, and therefore, impacts are less than significant.

Therefore, because specific future uses associated with implementing development projects within the PVCC have not yet been established and those future uses will be subject to project-specific CEQA review and regulation and monitoring by the Department of Environmental Health of the Riverside County

Community Health Agency, potential impacts related to the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment are considered to be **less than significant**.

Threshold: *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.*

Val Verde High School is located on Morgan Street, between Nevada Road and Webster Avenue. Since the proposed PVCC does not include any specific implementing development projects, the quantity of hazardous materials that would be used by proposed commercial, industrial, and infrastructure implementing development projects within the PVCC boundaries is unknown. However, as shown on **Figure 4.8-4**, light industrial land uses are proposed to the east of the high school. The light industrial land use designation allows specific uses that could potentially emit hazardous emissions or handle hazardous or acutely hazardous materials and wastes.

The proposed project will result in potentially significant impacts. However, since specific uses have not been determined for the PVCC, mitigation measure **MM Haz 1** has been included to require project-level CEQA review for any implementing development project that proposes industrial uses within one-quarter mile of Val Verde High School, in order to assure that any potential for the use of hazardous materials within the vicinity of Val Verde High School is identified and adequately addressed.

Additionally, although hazardous materials and waste generated from implementing development projects may pose a health risk to nearby schools, all businesses that handle or have on-site transportation of hazardous materials would be required to comply with the provisions of the City's adopted Fire Code and any additional requirements of the California Health and Safety Code Article 1 Chapter 6.95 for the Business Emergency Plan. Both the federal and state governments require all businesses that handle more than specified amount of hazardous materials to submit a business plan to a regulating agency. Therefore, with adherence to **MM Haz 1** and compliance with existing federal and state regulations, impacts associated with the exposure of schools to hazardous materials are considered **less than significant with mitigation incorporated.**

Threshold: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.*

On April 26, 1984, the Riverside County ALUC adopted the Riverside County ALUP. This plan established land use restrictions within the Airport-Influenced Areas that were adopted by the ALUC around airports in Riverside County. In 1986, airport-influenced areas were established around MAFB (which was realigned and converted to MARB on April 1, 1996). The airport-influenced area around MARB is divided into three land use planning areas (Area I, Area II and Area III).

In 1998 and again in 2005, updates of the MARB AICUZ Study were completed. The purpose of the AICUZ Study is to promote compatible land development in areas subject to aircraft noise and accident potential. With respect to accident potential, the AICUZ Study identifies a Clear Zone and two Accident Potential Zones (APZs) based on the landing threshold for each runway. Within the Clear Zone, most land uses are incompatible with aircraft operations. Within the APZs, a variety of land uses are compatible, however, people-intensive uses are restricted because of the greater risk in these areas. Outside of the Clear Zone and APZs, the risk of aircraft accidents is not significant to warrant special consideration in land use planning.

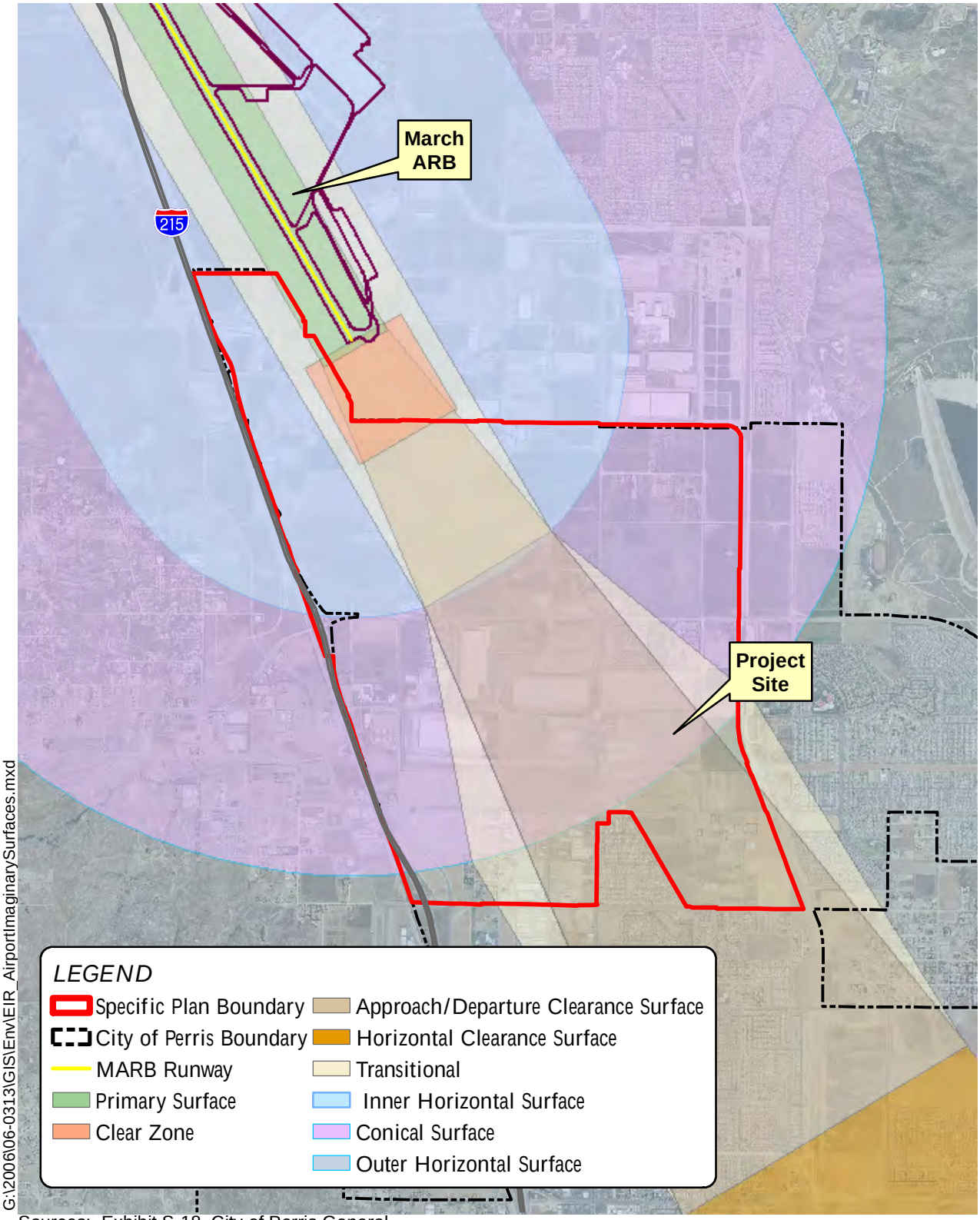
The proposed project will result in potentially significant impacts. However, MARB does not have a Comprehensive Land Use Plan therefore, the ALUC utilizes the planning areas set forth in the 1984 Riverside County ALUP, a 1986 mapping of the airport-influenced areas and the clear zones and accident potential zones (APZs) identified in the 2005 AICUZ Study to evaluate master plan consistency. The project site falls within airport-influenced areas, with a portion located within Area I and the balance of the PVCC project site located within Area II and Area III; thus, review by the Riverside County ALUC is required. On March 11, 2010, the ALUC found the project to be consistent with the applicable land use compatibility plans subject to certain conditions which have been incorporated into mitigation measures **MM Haz 2, MM Haz 3, MM Haz 4, MM Haz 5**, and **MM Haz 6**.

Airport Vicinity Height Guidelines

As previously discussed, the federal government has developed standards for determining obstructions in navigable airspace. FAR Part 77 defines a variety of imaginary surfaces at certain altitudes around airports. The Part 77 surfaces include the primary surface, approach surface, transitional surface, horizontal surface, and conical surface. Collectively, the Part 77 surfaces around an airport define a bowl-shaped area with ramps sloping up from each runway end (**Figure 4.6-2, FAR Part 77 Imaginary Surfaces**). The Part 77 standards are not absolute height restrictions, but instead identify elevations at which structures may present a potential safety problem. Penetrations of the Part 77 surface generally are reviewed on a case-by-case basis.

The 2005 MARB AICUZ Study uses the Part 77 criteria as the basis for height limitations in the vicinity of MARB. As shown on **Figure 4.6-2**, different portions of the proposed PVCC are located within the Clear Zone, Approach/Departure Clearance Surface, Horizontal Clearance Surface, Transitional, Inner Horizontal Surface, Conical Surface, and Outer Horizontal Surface.

Section D.2 of the Appendices to the 2005 MARB Air Installation Compatible Use Zone (AICUZ) Study describes height and obstruction criteria for land uses around the airfield pursuant to Part 77 criteria. This section states that the established airfield elevation for MARB is 1,535 feet above mean sea level. As shown on **Figure 4.6-2**, different portions of the proposed PVCC are located within the Clear Zone, Approach/Departure Clearance Surface, Horizontal Clearance Surface, Transitional, Inner Horizontal Surface, Conical Surface, and Outer Horizontal Surface; all of which have different height limitations imposed upon them. The Part 77 surfaces that have the greatest impact upon the PVCC are described below.



Sources: Exhibit S-18, City of Perris General Plan, 2005, MARB Citizen's Brochure, 2005; Eagle Aerial, 2010.

Figure 4.6-2
FAR Part 77
Imaginary Surfaces

Clear Zone (Surface B)
The Clear Zone defines the limit of obstruction clearance contiguous to the end of the runway.

Approach/Departure Clearance Surface (Surface C)
The Approach/Departure Clearance Surface imposes height restrictions based upon the distance from end of the runway, comparable to the elevation of the runway. It is a surface that has a 50:1 slope, up to a maximum of 500 feet above the elevation at the end of the runway. The elevation at the northern end of the runway is 1,535 feet mean seal level (MSL). The elevation at the southern end of the runway is 1,488 feet MSL. In other words, for every 50 feet of distance from the end of the northern runway, the maximum height of any building goes up 1 foot higher than 1,535 feet above mean sea level. For example, a proposed warehouse structure 5,000 feet from the end of the northern runway may be constructed to a maximum height of 1,635 feet above mean sea level at roof level.

Inner Horizontal Surface (Surface E)
The Inner Horizontal Surface is a plane, oval in shape at a height of 150 feet above the established airfield elevation (i.e., 1,685 feet above MSL at the northern end of the runway and 1,638 feet above MSL at the southern end of the runway) extending 7,500 feet around the centerline of the runway. Therefore, structures would need to exceed an elevation of 1,685 feet MSL at the northern end and 1,638 feet MSL at the southern end before they encroached into this Part 77 surfaces for the March Air Reserve Base runways.

Conical Surface (Surface F)
The Conical Surface is an inclined surface extending outward and upward from the Inner Horizontal Surface from an elevation of 150 feet above the elevation of the runway to a height of 500 feet above the elevation of the runway. It has a 20:1 slope from the Inner Horizontal Surface. In other words, for every 20 feet in distance from the edge of the Inner Horizontal Surface, a building may increase its highest elevation 1 foot higher than 1,685 feet above MSL at the northern end of the runway and 1,638 feet above MSL at the southern end of the runway. For example, a proposed commercial building 2,000 feet from the edge of the Inner Horizontal Surface may have a maximum height elevation of 1,785 feet at its roof line.

The proposed project will result in potentially significant impacts. However, Part 77 height limits, Part 77, Section 77.13.2.i requires that any construction or building alteration exceeding the imaginary surface extending upward and outward at a 100 to 1 slope from the nearest point of the runway will require preparation of a Federal Aviation Administration (FAA) Notice of Proposed Construction or Alteration (FAA Form 7460-1). This notice must be submitted to the FAA at least 30 days before the date proposed construction or alteration is to begin or the date the application for a construction permit will be filed, whichever is earlier. Notwithstanding the established airfield elevation set forth in the MAFB AICUZ study, the elevation of the runway at its nearest point to the PVCC is 1,638 MSL. Therefore, depending on the elevation of the finished grade and height of the proposed structure, future development within the Perris Valley Commerce Center may encroach into this 100 to 1 slope imaginary surface and will require the filing of Form 7460-1 with the FAA in accordance with Sections 77.13 and 77.17 of the FAR as required by mitigation measure **MM Haz 6**. If a hazard to air navigation is identified, then the FAA will issue a determination of hazard to air navigation. However, the FAA does not have the authority to prevent encroachment; it is up to the City to enforce the recommendation.

Airport Safety Compatibility Guidelines

There are two policies within the 1984 ALUP related to safety considerations. The 1984 ALUP states that:

- Area I shall be kept free of all high-risk land uses. Residential development (2½ acre lot size and larger) will be permitted only within areas designated by the ALUC to be so far removed from the actual flight paths or to be in areas where aircraft will have gained sufficient altitude that they no longer pose a relative safety threat, should in-flight problems occur.
- Area II shall have a minimum residential lot size of 2½ acres. Agricultural, industrial and commercial uses are acceptable in this area.

The proposed project's land uses are permitted within Area I, Area II, and Area III as described in the 1984 ALUP.

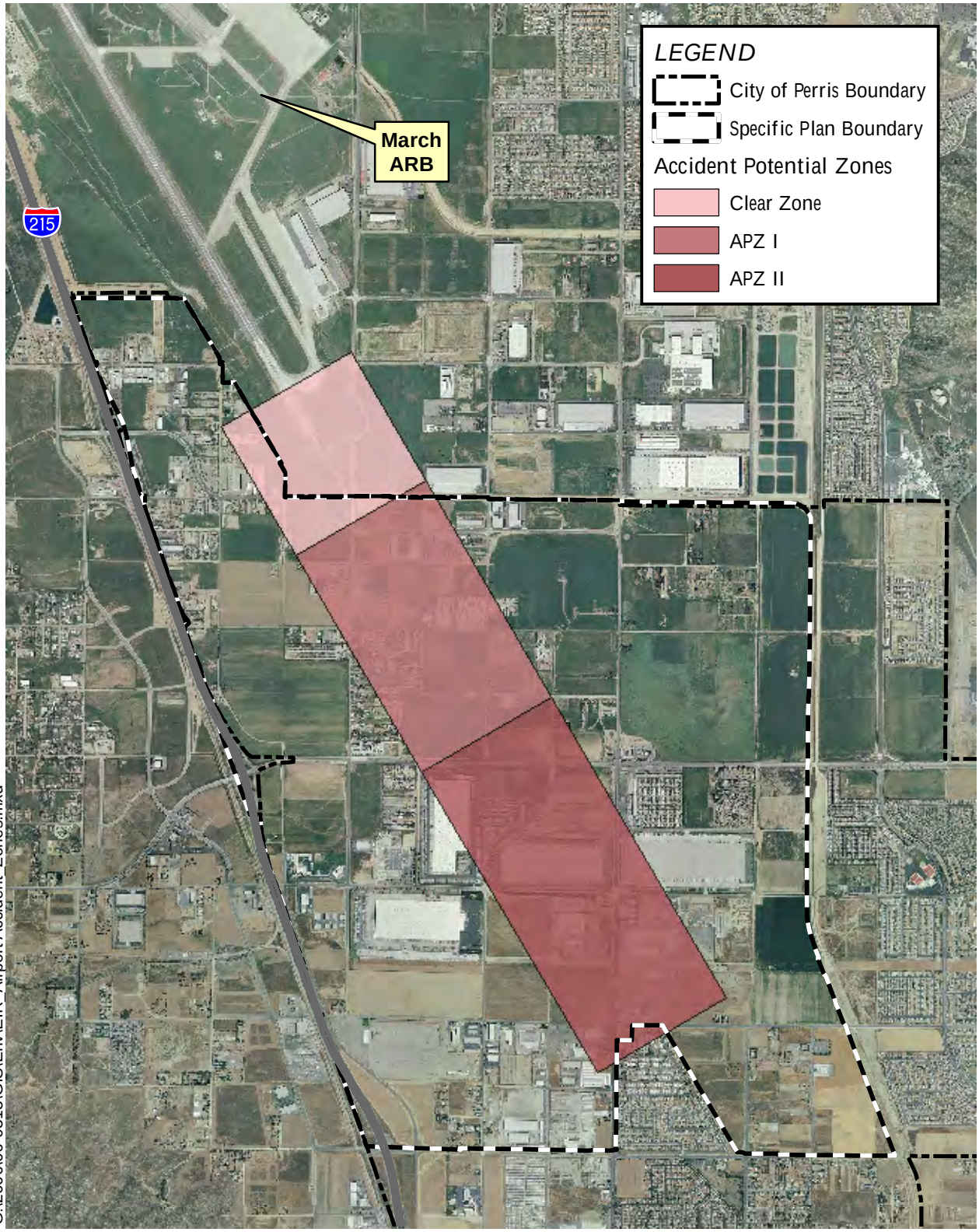
Additional guidelines regarding protection of airport airspace are set forth in other FAA documents. In general, these criteria specify that no use of land or water anywhere within the boundaries encompassed by FAR Part 77 should be allowed if it could endanger or interfere with the landing, take off, or maneuvering of an aircraft at an airport. Specific characteristics to be avoided include:

- Creation of electrical interference with navigational signals or radio communication between the airport and aircraft;
- Lighting which is difficult to distinguish from airport lighting;
- Glare in the eyes of pilots using the airport;
- Smoke or other impairments to visibility in the airport vicinity; and
- Uses which attract birds and create bird strike hazards.

The proposed project will result in potentially significant impacts. However, the above restrictions have been incorporated into the below-listed mitigation measure **MM Haz 5.**

With respect to accident potential, the 2005 AICUZ Study identifies a Clear Zone and two APZs based on the landing threshold for each runway. Within the Clear Zones, most land uses are incompatible with aircraft operations. Within the APZs, a variety of land uses are compatible, however, people-intensive uses are restricted because of the greater risk in these areas. Outside of the Clear Zones and APZs, the risk of aircraft accidents is not significant to warrant special consideration in land use planning. The proposed project is not located within a Clear Zone or within the APZs. Influence Area I is co-extensive with the Clear Zone and Accident Potential Zones I and II delineated in the AICUZ studies completed by DOAF. The proposed PVCC would establish an Airport Overlay Zone comprised of the "Clear Zone," the Accident Potential Zone I and the Accident Potential Zone II. Together, they comprise an area of approximately 1,032 acres generally extend south of the runway at MARB through the central part of the PVCC project area. (**Figure 4.6-3, Accident Potential Zones for MAFB**)

The entire project site is located within the MARB Influence Areas (**Figure 4.6-1**). The applicable documents for determining land use compatibility around MARB are the March 2005 AICUZ Study, the 1984 ALUP and the 1986 Airport Influence Area Map. As described above, the land uses proposed by the PVCC are consistent with the Area I, Area II, and Area III compatibility guidelines set forth in those documents.



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Sources: County of Riverside, 2011;
Eagle Aerial, 2010.

Figure 4.6-3
Accident Potential Zones for MARB

Notwithstanding the PVCC's compatibility with MARB, the PVCC's and implementing development and infrastructure projects' compliance with Federal, State and County regulations and guidelines, outdoor lighting has the potential to adversely affect pilots utilizing MARB at night. These potential impacts will be reduced to below the level of significance through implementation of the mitigation measures **MM Haz 3** and **MM Haz 5**. **Therefore, impacts will be less than significant with mitigation incorporated.**

Proposed Mitigation Measures

An EIR is required to describe feasible mitigation measures which could minimize significant adverse impacts (State CEQA Guidelines, Section 15126.4). Mitigation measures were evaluated for their ability to eliminate or reduce potential adverse impacts related to hazards and hazardous materials, to less than significant levels. The following mitigation measures will be implemented to reduce potential impacts to less than significant levels:

MM Haz 1: Any proposed industrial uses located within one-quarter mile of Val Verde High School (located at 972 Morgan Street, between Nevada Road and Webster Avenue, Perris, CA) or any other existing or proposed school shall perform project-level CEQA review to determine the potential for project-specific impacts associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste.

MM Haz 2: Prior to the recordation of a final map, issuance of a building permit, or conveyance to an entity exempt from the Subdivision Map Act, whichever occurs first, the landowner shall convey an avigation easement to the MARB.

MM Haz 3: Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky or above the horizontal plane.

MM Haz 4: The following notice shall be provided to all potential purchasers and tenants:

> "This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example, noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Profession Code 11010 13(A)"

MM Haz 5: The following uses shall be prohibited:

(a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

(b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

(c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

(d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

(e) All retention and water quality basins shall be designed to dewater within 48 hours of a rainfall event.

MM Haz 6: A minimum of 45 days prior to submittal of an application for a building permit for an implementing development project, the implementing development project applicant shall consult with the City of Perris Planning Department in order to determine whether any implementing project-related vertical structures or construction equipment will encroach into the 100-to-1 imaginary surface surrounding the MARB. If it is determined that there will be an encroachment into the 100-to-1 imaginary surface, the implementing development project applicant shall file a FAA Form 7460-1, *Notice of Proposed Construction or Alteration.* If FAA determines that the implementing development project would potentially be an obstruction unless reduced to a specified height, the implementing development project applicant and the Perris Planning Division will work with FAA to resolve any adverse effects on aeronautical operations.

Summary of Environmental Effects After Mitigation Measures Are Implemented

Potential impacts related to the creation of a significant hazard to the public or environment through the routine transportation, use, or disposal of hazardous materials, and the creation of a significant hazard to the public or environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment were found to be less than significant without mitigation required.

Impacts related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or planned school, and safety hazards for people residing or working in the project area, if within an airport land use plan or within two miles of a private or private-use airport were found to be potentially significant. However, with implementation of mitigation measures **MM Haz 1** through **MM Haz 6**, these potential impacts will be reduced to **less than significant levels**.

4.7 Hydrology and Water Quality

Potential impacts related to violation of any water quality standard or waste discharge requirement, degradation of water quality, placement of housing within a 100-year flood hazard area, and exposure of people or structures to inundation by seiche, tsunami, or mudflow were all found to be less than significant in the Initial Study/NOP prepared for this project (Appendix A). The focus of the following discussion is related to potential impacts regarding: depletion of groundwater supplies or interfering with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level; substantially altering the existing drainage pattern of the site or area, through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site; creating or contributing runoff water which would exceed the capacity of existing stormwater drainage systems, or provide substantial additional sources of polluted runoff; place within a 100-flood hazard area structures that would impede or redirect flood flows; and exposure of people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

In response to the NOP, comment letters were received from the Riverside County Flood Control and Water Conservation District (RCFC&WCD), March Joint Powers Authority, State of California Department of Water Resources, California Regional Water Quality Control Board (RWQCB) and the State of California Department of Transportation (Caltrans). The RCFC&WCD requested the EIR identify potential impacts to the Perris Valley Storm Channel (PVSD) facilities and increased runoff or other drainage issues that may affect the PVSD and that Interim Development Criteria is followed. The State Department of Water Resources requested that potential flooding impacts be addressed. RWQCB requested that control of urban runoff into the San Jacinto Watershed be addressed. Caltrans requested that the site grading and drainage design not adversely impact State Right-Of-Way (ROW[1]) and that existing capacity of affected State drainage systems are not exceeded. These comments and concerns are incorporated into this section of the EIR.

In addition to other reference documents, the following references were used in the preparation of this section of the Draft EIR:

- California Regional Water Quality Control Board, Santa Ana Region, *Nonpoint Source Program Strategy and Implementation Plan, 1998-2013.* (Available at http://www.waterboards.ca.gov/water_issues/programs/nps/protecting.shtml, accessed November 30, 2009.) (PROSIP)
- California Regional Water Quality Control Board, Santa Ana Region, *Water Quality Control Plan Santa Ana River Basin*, February 2008 update. (Available at www.swrcb.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml, accessed November 30, 2009.) (RWQCB)
- City of Perris, *City of Perris General Plan 2030*, July 12, 2005. (Available at www.cityofperris.org/city-hall/general-plan.html, accessed November 18, 2009.) (Perris GP EIR)
- Eastern Municipal Water District, *Eastern Municipal Water District Urban Water Management Plan,* 2005. (Available at http://www.emwd.org/news/pubs_uwmp.html, accessed June 3, 2011.)

[1] Property acquired by the State of California for transportation purposes such as highways, expressways, roads and streets, as well as associated facilities such as maintenance structures, drainage systems and roadside landscaping. The PVCC traverses along Interstate-215 which is owned by the State of California consisting of various ROW widths.